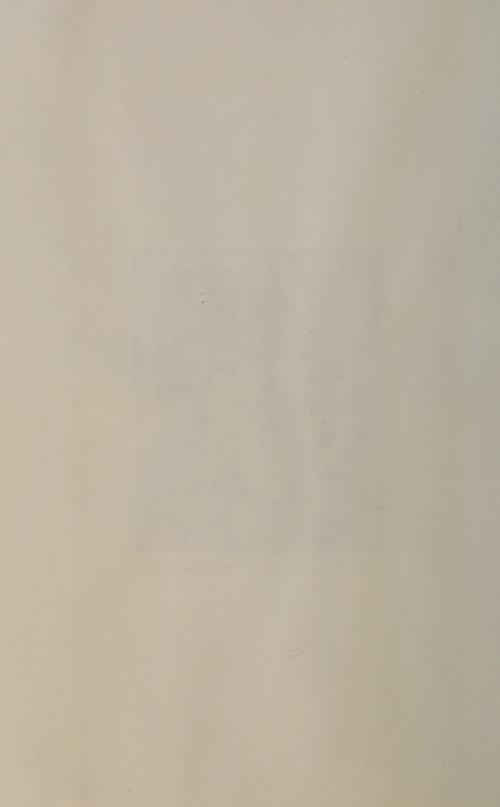
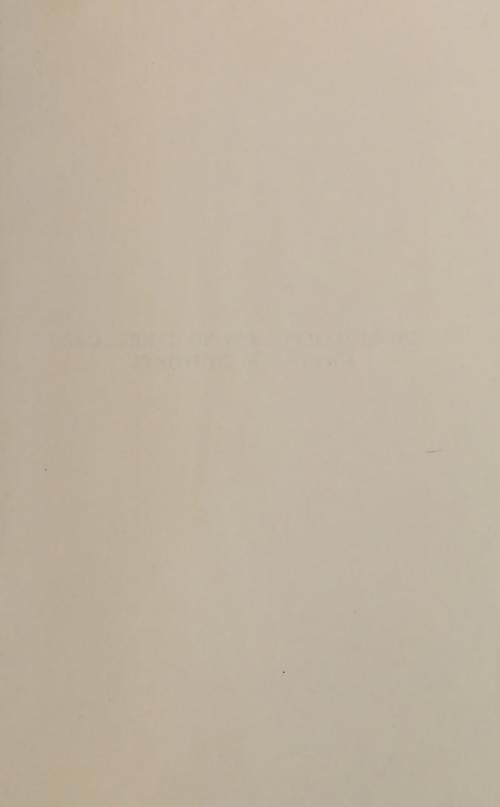




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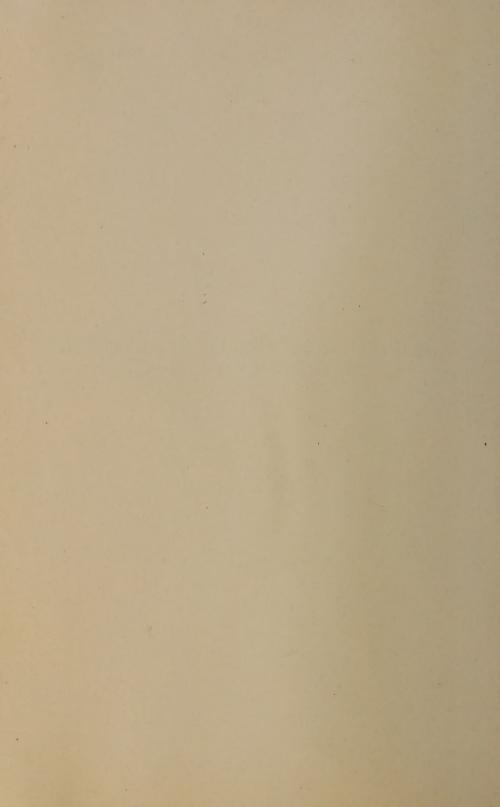








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4		ALDBREVIATIONS

Harry Langford Wilson

President
of the
Archaeological Enstitute of America
Died February 23, 1913

Ernest Jackson

Member of the Council of the Archaeological Enstitute of America and Secretary of the Boston Society Died February 27, 1913



Archaeological Institute of America

A POLYPHEMUS CYLIX IN THE MUSEUM OF FINE ARTS IN BOSTON

THE vase which is the subject of this paper is important for three reasons. In the first place, it was long thought to be the oldest known vase dealing with the story of Circe; ¹ secondly, it is the only vase dealing with that phase of the Cyclops episode in which Odysseus offers wine to the Cyclops; thirdly, a comparison with two similar vases, to be described later, reveals pretty positively the existence of a hitherto unrecognized vase-painter among the masters of the black-figured technique.²

The vase is an early black-figured cylix, fifteen centimetres high, with a maximum diameter of twenty-one centimetres. It has been put together from fragments, but nearly all of the vase is preserved, the only important missing pieces being the foot and part of the rim, which, however, have been restored. The vase was broken in antiquity and mended with rivets; the rivet-holes show plainly in the drawing.³

The interior is not used for decoration; it is covered with black glaze, with four red lines encircling it. The handles, which are heavy and thick, with a knob at the end of each handle, "strongly suggestive of metal technique," to quote the Museum Report, are decorated with an ivy pattern and a heavy red stripe at the top and bottom. Below the painting is a band of lotus, separated from the painting by two lines. This band is interlacing, of alternate buds and blossoms; the buds were originally painted red over the black glaze, and the

¹ Of late, however, older vases have been published dealing with this subject.

² For the excellent drawing which accompanies this article, I am indebted to my very good friend, Mr. Henry L. Whitney, a student of Landscape Architecture in the Harvard Graduate School of Applied Science.

³ The Boston Museum purchased this vase with the Pierce fund in 1899. It is described in the report of the Museum for that year, pp. 59-61, and a photograph of it is published in the Handbook to the Museum (1911), p. 72.

blossoms, with their two pointed calyces, white. Below the lotus are three lines, then a ray pattern. The field of the vase is covered with meaningless inscriptions.

Side A (Fig. 1) represents Circe transforming the companions of Odysseus. There are eight figures. In the middle, Circe, standing in profile to right, holds a cylix, the contents of which she is stirring with a stick. She is nude, her flesh painted white over black glaze. At her feet sits a dog, looking up at



FIGURE 1. — CYLIX IN BOSTON. CIRCE AND COMPANIONS OF ODYSSEUS.

her. Facing her, stand three of the transformed comrades, all nude. The first, who is talking with her and gesticulating, has the head of a boar, but is otherwise human; the second has the head, shoulders, and forelegs of a ram; the third, those of a dog. At the extreme right is a bearded man, running away to right, looking back. His left leg is drawn over the handle, and his foot is in the space under the handle. In the *Museum Report* it is suggested that this is intended to be Eurylochus, but it is more probably a filling figure, as Odysseus is present in the picture. "Eurylochus" wears a chlamys without folds, and open in front, which is decorated with red spots surrounded with white dots. On his breast are two circles of red. Behind Circe, at the left, is another companion, nude, and with the head, shoulders, and forelegs of a boar, who stands looking at

her. Next to him Odysseus comes rushing upon the scene, his arms akimbo, grasping his sword in one hand, and his scabbard in the other. He wears a chlamys, identical in details with that worn by the other man, and has the two red circles on his breast. The last figure at the left is a fifth companion, with the head of a lion (breast painted red), running away.¹

It is side B (Fig. 2), however, which is the more important for our present purposes. It represents Odysseus in the cave of Polyphemus in the act of giving the Cyclops wine to drink. It is the only known portrayal of this subject on a Greek vase, and this is all the more striking because the other phases of the story of the Cyclops are very copiously treated in the vase-paintings. Polyphemus, although his head and the upper part of his body are missing, is easily recognized by his superhuman size. He is nude, the front half of his body painted red. He is on one knee, kneeling to right; his arms are raised. He is evidently in the act of beseeching Odysseus for more wine, as in *Odyssey*, IX, 353–356:

ώς ἐφάμην, ὁ δ' ἔδεκτο καὶ ἔκπιεν, ἦσατο δ' αἰνῶς ἡδὺ ποτὸν πίνων καὶ μ' ἦτεε δεύτερον αὖτις ' δός μοι ἔτι πρόφρων, καί μοι τεὸν οὔνομα εἰπὲ αὐτίκα νῦν, ἴνα τοι δῶ ξείνιον, ῷ κε σὸ χαίρης, etc.

The head and the upper part of the body of Odysseus are also missing, but his identification is made certain by the oenochoe which he holds in his left hand. He is evidently pouring wine into a drinking-cup. The identification of Odysseus is made still more certain by the presence of his patroness Athena in full panoply behind him. She wears a close-fitting chiton of red, and her flesh is in white overcolor, as is customary in the black-figured technique. She is armed with helmet, spear, and a round shield, which has for its device a swan with spread wings.² This device is nearly obliterated, and can be seen only with difficulty. It was originally in white overcolor. At

¹ I hope, at some future period, to publish an adequate drawing of this side, with another black-figured cylix dealing with the Circe episode, hitherto unpublished and now in Boston, together with a list of all the known vases dealing with this subject.

² For other vases showing this device, see G. H. Chase, 'The Shield Devices of the Greeks,' *Harvard Studies in Class. Phil.* vol. XIII, 1902, p. 124.

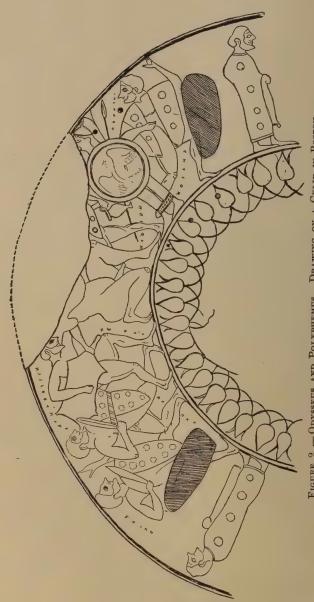


FIGURE 2. - ODYSSEUS AND POLYPHEMUS. DRAWING ON A CYLIX IN BOSTON.

the right of the picture, behind Athena, a man is running away to right. Like the so-called "Eurylochus" on side A, he wears an open chlamys without folds, decorated with red spots surrounded by white dots. His pose is the same, and in all respects he is identical with the "Eurylochus," except that his breast is painted red. Behind Polyphemus, one of the comrades of Odysseus brings up a large wine-skin. He is nude and bearded. Two other companions appear behind him, the first one retreating to left, the second advancing from the left. The left leg of the last comrade extends beyond the handle and his foot is drawn in under the handle. Each of these comrades wears a chlamys, decorated with red spots surrounded with white dots, and each has a sword. They are bearded, like the comrade with the wine-skin, and each has two red circles on his breast. Under the handles, on either side, is a bearded man in a mantle decorated with red spots. There are traces of white overcolor on these mantles.

As I have said before, this is the only Greek vase-painting dealing with this subject, but there are two Etruscan urns ¹ and one Roman lamp ² on which it appears.

The vases which deal with the two other phases of the Polyphemus episode, namely, the blinding of the Cyclops, and the escape of Odysseus and his comrades from the cave, have often been discussed and listed; ³ but the following list will, I think, be found more complete than any that has yet been published. In this article, I have tried not only to include all the vases, so far as I could discover them, but also to group them according to types.

There are seven undisputed vases dealing with the blinding

¹ Brunn, Urne Etrusche, I, pl. 86, 1 and 2.

² Annali dell' Inst. 1863, pl. O, 3.

³ In chronological order these articles are: H. Heydemann, "Monumenti Relativi all' Odissea," Annali dell' Inst. 1876, pp. 347-358, and plate R (deals only with the escape of Odysseus under the ram); J. Bolte, De Monumentis ad Odysseam Pertinentibus, Berlin, 1882, pp. 2-16; Jane Harrison, "Monuments relating to the Odyssey," J.H.S. IV, 1883, pp. 248-265 (deals only with the escape of Odysseus under the ram); A. Schneider, Der Troische Sagenkreis, Leipzig, 1886, pp. 53-65; H. B. Walters, History of Ancient Pottery, vol. II, p. 136; F. Mueller, De Monumentis ad Odysseam Pertinentibus, Halle, 1908, pp. 2-23.

of Polyphemus. These can be divided into two groups, the first of which can be subdivided into two types.¹

Type I. Polyphemus is awake, contrary to the Homeric tradition. Four vases.

- A. He is eating the comrades of Odysseus. Two vases, Nos. 1 and 2.
- No. 1. Bibliothèque Nationale 190, a "Cyrenaic" cylix found at Nola, and acquired in 1840. Published in *Monumenti dell' Inst.* I, plate 7, 1, and elsewhere. This vase is to be found in the lists of all the collectors.²
- No. 2. Berlin 2123, a late black-figured amphora, bought by Panofka in Naples in 1847, and published by him in *Parodien* und Karikaturen, 1851, plate 3, 12. This vase also occurs in all the lists.³
- B. Polyphemus is awake, but not eating. Two vases, Nos. 3 and 4.
- No. 3. Archaic crater in the Capitoline Museum, signed by Aristonophos.⁴ This is the earliest signed vase known, and the classification is uncertain, but probably Ionian. It has been frequently published, but best in *Monumenti dell' Inst.* IX, pl. 4. It is found in all the lists.⁵
- No. 4. Boeotian skyphos in Berlin, acquired since Furtwängler's catalogue. Published by Furtwängler in the *Arch. Anz.* 1895, pp. 34, 35, and figs. 8 and 9.6

¹ Of these seven vases, five are listed in all the previous articles, and the other two (4 and 7 of my list) only by Walters and Mueller.

² Bolte, B; Schneider, B; Mueller, 2.

⁸ Bolte, F; Schneider, D; Mueller, 5.

⁴ Various theories have been propounded as to the correct spelling of this name. The reading of the inscription is kept by Klein (*Euphronios*, p. 73, note 1, and *Meistersignaturen*, p. 27); by Arndt (*Studien zur Vasenkunde*, p. 3); by Heydemann (*Annali dell' Inst.* 1878, p. 228); and by Benndorf (*Griech. und Sicil. Vasenb.* p. 53, note 273). Aristonomos, the first emendation suggested, was substituted by Foerster in publishing the vase (*Annali dell' Inst.* 1869, pp. 169 f.). Aristonoms is adopted by Bolte (*De Mon. ad Od. Pert.* p. 5); by Ramsay (*J.H.S.* X, 1889, p. 187); and in the latest article, that of Ducati (*Mél. Arch. Hist.* XXXI, pp. 1–2). Aristonothos is read by Wilamowitz (*Hermes*, XXII, 1887, p. 118, note 1); by Kretschmer (*Griech. Vaseninschr.* pp. 10–12); and by Mueller (*De Mon. ad Od. Pert.* p. 3). Ariston, the Coan, is suggested by Dümmler (*B. Ph. W.* VIII, 1888, p. 17). For my part, I read Aristonophos.

⁵ Bolte, A; Schneider, A; Mueller, 1.

⁶ Mueller, 4.

Type II. Polyphemus is asleep. Three vases, Nos. 5, 6, and 7.

No. 5. British Museum B154, a black-figured amphora, "showing Chalcidian influence" according to Walters in his catalogue of the black-figured vases in that Museum. Best published in the *Monumenti dell' Inst.* X, pl. 53, 2.1

No. 6. Louvre F342, a black-figured oenochoe from the Campana collection. Published in *Gaz. Arch.* 1887, pl. 1.²

No. 7. A red-figured calyx crater in the possession of Sir Francis Cook at Richmond. Published by Winter in *Jb. Arch. I.* 1891, pl. 6. Furtwängler argues that this vase is of South Italian manufacture,³ and it certainly seems to be influenced more by the Cyclops of Euripides than by the Odyssey.⁴

Besides these examples, two other vase-paintings have sometimes been thought to represent the blinding of Polyphemus, though this interpretation is disputed and seems to me incorrect. For the sake of completeness, I have included these, and given them numbers.

No. 8. Fragment of a "Cyrenaic" cylix found at Orbetello, and described by Helbig in the Bulletino dell' Inst. 1869, p. 34. The present location of this fragment is unknown. It has represented upon it four figures in procession, as in the Bibliothèque Nationale vase, but Polyphemus is missing. Furthermore, it has a curious inscription, < Y 3 13, reading from right to left, which cannot be satisfactorily explained if we believe it to be a Polyphemus vase. Mueller 5 reads this inscription to mean Perseus, and argues that the vase deals with a myth of that hero. There are two valid objections to this theory: (1) the letters do not spell Perseus, and I know of no dialect which could allow such a spelling; (2) it is hard to find a myth that would agree with the representation on the vase. An explanation that I have not seen offered anywhere, is that the vase portrays a religious procession, and that the inscription should be restored ζ Υ ϶ ϥ ϶ [IH], i.e. ἱερεύς, "priest."

No. 9. Fitzwilliam Museum 43, an Ionian amphora, published by E. A. Gardner in his *Catalogue*, pl. 6. This vase,

¹ Bolte, D; Schneider, C; Mueller, 3.

² Bolte, E; Schneider, F; Mueller, 6.

³ Masterpieces, p. 109, note 8. ⁴ Mueller, 7. ⁵ De Mon. etc., p. 6, note.

which was formerly in the Leake collection, had been at one time repainted and restored to represent the blinding of Polyphemus: but a careful examination clearly proved that the original drawing had nothing to do with the story of the Cyclops.

There are no less than twenty vases that have been attributed to the escape of Odysseus under the ram, and the majority of them are undisputed, only two being in doubt.¹ These vases can be divided into six groups or types.

Type I. Odysseus and his comrades escaping under rams. Polyphemus is in the picture, and his cave is indicated. Nos. 1 and 2.

No. 1. Black-figured lecythos in the Rhousopoulos collection, in Athens. Published in the R. Arch. XXXI, 1897, pp. 28 f. and figs. 1 and 2.2

No. 2. Red-figured cylix in the Castellani collection in Rome. Published by Miss Harrison in *J.H.S.* IV, 1883, fig. 3, to face p. 252, and p. 255, fig. 4.³

Type II. Polyphemus is omitted. Nos. 3, 4, 5, 6, 7, 8, and 9.

- No. 3. Fragment of a hydria of archaic ware found at Aegina, and now in the local museum. Published in *Ath. Mitt.* 1897, pl. 8, and pp. 324 f., figs. 40, 41, and 42. The ware is like the "Rhodian," but may be of local manufacture.⁴
- No. 4. Black-figured oenochoe, "in the Municipality collection" (to quote Miss Harrison), Florence. Published by Miss Harrison in J.H.S. IV, 1883, p. 261, fig. 5.⁵
- No. 5. Black-figured lecythus formerly in the Trabbia collection in Palermo, but now lost. Published in *Monumenti dell' Inst.* I, pl. 7, Nos. 3 and 4.6
- No. 6. Munich 755 (Jahn): 1885 (present numbering), a black-figured lecythus, found at Girgenti. Unpublished.

¹ See p. 5, note 3. Chronologically, the lists for this phase are: Heydemann, with 12 vases; Bolte, with 13 vases; Miss Harrison, with 14 vases; and Mueller, with 18 vases. Schneider uses Miss Harrison's list.

² Harrison, 1; Mueller, 2.

³ Bolte, a; Harrison, 14; Mueller, 18. ⁴ Mueller, 1.

⁵ Heydemann, h; Bolte, L; Harrison, 2; Mueller, 17.

⁶ Heydemann, c; Bolte, F; Harrison, 3; Mueller, 9.

⁷ J. Sieveking, Führer durch die kgl. Vasensammlung zu München, 1908.

⁸ Heydemann, e; Bolte, E; Harrison, 4; Mueller, 8.

- No. 7. Munich 1056 (Jahn), an Etruscan panel-amphora, in imitation of the Attic black-figured technique. Published in Micali, *Storia*, pl. 99, No. 10.2
- No. 8. British Museum B687, a black-figured lecythus from the Canino collection. Published best in *Gaz. Arch.* 1888, pl. 28 b.³
- No. 9. Karlsruhe 167, a celebe of the late black-figured technique. Published by Miss Harrison in J.H.S. IV, 1883, pp. 248 f. and figs. 1 and 2.4

Type III. Odysseus and Polyphemus. Only the fore part of the ram appears. Nos. 10, 11, 12, 13.

- No. 10. British Museum B502, a black-figured oenochoe, published by Miss Harrison, in her *Myths of the Odyssey*, pl. 6 b, and in *J.H.S.* IV, 1883, p. 263, fig. 6.⁵
- No. 11. Athens 772, a black-figured oenochoe, published in R. Arch. XXXI, 1897, p. 31, fig. 3, and Heydemann, Griechische Vasenbilder, pl. 8, No. 2.6
- No. 12. Berlin 1913, a black-figured oenochoe of the olpe type. Published by Raoul Rochette, *Monuments Inédits*, pl. 65, No. 1, and Overbeck, *Gal. Her. Bildw.* pl. 31, No. 5.⁷
- No. 13. Louvre A482, a black-figured oenochoe from the Campana collection, published by Pottier, *Vases Antiques du Louvre*, vol. I, pl 18.8

These vases are, as will be noticed, all oenochoae, and look as if they might all have been made in the same atelier.

Type IV. Same as Type II, with the addition of supplementary figures. Nos. 14, 15, and 16.

- No. 14. British Museum B407, a black-figured cylix found at Naucratis, and put together from fragments. Unpublished.⁹
 - No. 15. Fitzwilliam Museum 67, a black-figured "Klein-
- ¹ Since this was written, Sieveking's admirable catalogue of the Munich vases, vol. I, has appeared. This vase is there described and illustrated, with the number 832.
 - ² Heydemann, d; Bolte, G; Harrison, 5; Mueller, 12.
 - ³ Heydemann, f; Bolte, D; Harrison, 6; Mueller, 7.
 - ⁴ Heydemann, g; Bolte, H; Harrison, 7; Mueller, 13.
 - ⁵ Harrison, 8; Mueller, 4.
 - ⁶ Heydemann, a; Bolte, B; Harrison, 9; Mueller, 5.
 - ⁷ Heydemann, b; Bolte, A; Harrison, 10; Mueller, 3.
 - ⁸ Bolte, C; Harrison, 11; Mueller, 6.
 - 9 Mueller, 11.

meister" cylix, formerly in the Leake collection. Unpublished.1

No. 16. Würzburg 270, a black-figured "Kleinmeister" cylix, published (but not listed) by Heydemann, in *Annali dell' Inst.* 1876, pp. 347–358, and pl. R.²

Type V. Combination of Types III and IV. No. 17.

No. 17. Bibliothèque Nationale 280, a black-figured lecythus, published in De Ridder's *Catalogue*, vol. I, p. 189, fig. 30. This vase has never been listed before.

Type VI. Miscellaneous vases. Nos. 18, 19, 20.

No. 18. Black-figured oenochoe in the Nowikow collection, Kertsch. Mentioned in the *Arch. Anz.* 1897, p. 7.3

No. 19. Vase of unknown form seen by Welcker, and mentioned by him in his *Alte Denkmüler*, vol. V, p. 235.⁴

No. 20. St. Petersburg 870, a Calene phiale, with Odysseus bound under the ram modeled in relief inside the vase. Unpublished.⁵

This ends the Greek vases that deal with the story of the Cyclops. But the Boston cylix has another definite point of interest besides its unique position among the vases that portray this story. In studying the vase, I was at once struck by its peculiar shape, with its heavy, knobbed handles, and by the traces of an abundant use of overcolor. In an idle way I took up various catalogues of vase collections, and to my surprise and gratification, I found that the Berlin and Munich collections each had a vase of this same shape. I then took up the question of technique, and have arrived at some rather surprising and very interesting results.

Let us first take up the Berlin cylix, No. 1672 in Furtwängler's catalogue, where it is classified by him as Chalcidian. Of it he says that there is much red and white overcolor on the varnish; that the inside is simply covered with the black glaze, with red stripes running round it; and that red runs also around the rim. All this corresponds exactly with the Boston

¹ Heydemann, k; Bolte, K; Harrison, 12; Mueller, 15.

² Bolte, M; Harrison, 13; Mueller, 16.

⁸ Mueller, 10.

⁴ Heydemann, 1; Bolte, J; Mueller, 14; rejected by Miss Harrison.

⁵ Heydemann, i; not in the lists of Bolte and Mueller, and rejected by Miss Harrison.

cylix. These coincidences, and others to be shown later, make it probable that the foot of the Boston vase should be restored as in the Berlin cylix, *i.e.* in black glaze with a red band round the foot. The handles of the Berlin cylix are varnished, with the edges and knobs of red. Traces of varnish with applied red can be found on the tops and bottoms of the handles of the Boston vase. In the Berlin vase, however, there are no figures painted in under the handles.

The painting on each side of Berlin 1672 represents in each case a combat between two warriors (Zweikampf). Furtwängler gives a very full description of the different figures. It is sufficient to say that while one side represents a fight over a fallen warrior, on the other side only two warriors are represented, one of whom is forced to the ground by his stronger opponent. On each side a woman is represented as a filling figure, and there is a flying eagle on each side. Common to each side, also, are a number of peaceful men clad in mantles, who may in each case be supposed to be onlookers.

Let us now take up the points in which this vase resembles the Boston cylix. In each case it is to be observed that the woman wears a red chiton. Wherever the chlamys is worn (i.e. on the women and the quiet figures) we should observe that it is decorated with red spots surrounded with white dots. Now, on the Boston vase, in the Polyphemus scene, we have noticed that Athena wears a red chiton; so that this is a marked similarity to the Berlin vase. But still more important is the treatment of the chlamys; for the two vases exactly correspond in this particular.

This seems to show pretty conclusively that the Boston cylix and Berlin 1672 are the work of one and the same man. But there are several other points of resemblance. Under the frieze there is a band of lotus on the Berlin cylix that is absolutely identical with that of the Boston vase, that is, with red buds and white blossoms. No ray pattern, however, appears on the vase in Berlin as on that in Boston.

To sum up: the similarities in technique between the two vases are: (1) the abundant use of overcolor; (2) the treatment of drapery without folds; (3) the ornamentation of the chlamys with spots of red surrounded with white dots; (4) the

use of a red chiton for women; (5) the exact correspondence of the lotus pattern in the two vases; (6) the absolute similarity of the treatment of the inside of the two vases; (7) the unusual shape, with its heavy, knobbed handles. All this proves conclusively, in my opinion, that Berlin 1672 and the Boston cylix were made by the same potter, and painted by the same painter. If this is so, then it seems as if Furtwängler must be mistaken in calling this vase Chalcidian. For, assuming that it is, and that my premise that it and the Boston vase are the work of the same hand is correct, then we should expect that the inscriptions on the Boston vase would have some meaning, for this is the rule with Chalcidian vases. But these inscriptions are meaningless, proving that the Boston vase is Attic. Then so must Berlin 1672 be Attic, if my theory is correct, and I think I have shown from similarities of technique that it is. A better title, therefore, for the Berlin vase would be "Attic, with Chalcidian influence," or "Attic, with Oriental influence."

Let us now turn to the Munich cylix. It is of the same shape, with heavy, knobbed handles, and is No. 335 of Jahn's catalogue. The subject, which is the same on each side of the vase, is of a Dionysiac nature. There are six figures. In the middle of each side, Dionysus, with a drinking-horn in his left hand, and a vine in his right, walks to right, looking behind him at a nude, bearded satyr, who runs toward him, carrying a wine-skin full of wine on his left shoulder. Dionysus wears a white chiton with red spots, and a black himation decorated with red spots surrounded with white dots. The satyr is followed by a woman, clad in a black, sleeveless chiton, decorated with the red spots surrounded by white dots, and with a red fillet in her hair. Her flesh is treated in white overcolor. Behind her, a nude satyr, with red hair and beard, stands looking at her in astonishment. In front of Dionysus, a nude, bearded satyr pursues a woman, clad exactly as the other is clad, who runs off to right. Her pose is exactly the same as the "Eurylochus" of the Boston cylix. Below, a band of lotus, with black buds and red blossoms, runs around the vase; below that,

¹ Its present number in the Pinakothek is 2016. See p. 8, note 7. In referring to this vase, I shall use its present number.

three lines, then a meander, then three more lines, and then a tongue and ray pattern, the tongues of alternate red and black. The handles are of black varnish, with applied red on the tops and bottoms, and on the tops of the knobs. Under the handles there are satyrs. The field of the vase is covered with meaningless inscriptions. The vase is published in Lau, Die Griechischen Vasen, pl. 18, 1.

The similarities in technique between this vase and the Boston cylix are: (1) the abundant use of overcolor; (2) the treatment of the garments without folds; (3) the use of the red spots surrounded with white dots; (4) the presence of many meaningless inscriptions on the field of the vase; (5) the relative similarity of the lotus patterns in the two vases; (6) the drawing in of figures under the handles; (7) the unusual shape, with the heavy, knobbed handles. With all these points of resemblance, I think it fairly safe to assume that the treatment of the inside of the Munich vase is identical with that of the Boston cylix. I therefore firmly believe that Munich 2016 (as it is numbered now) belongs with Berlin 1672 and the Boston cylix in a class by a hitherto unrecognized master, whose characteristics seem to be the abundant use of overcolor, the decoration of garments with red spots surrounded with white dots, and in the cylix, the use of heavy, knobbed handles, "strongly suggestive of metal technique." 1

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¹ I wish here to repeat my obligation to my friend, Mr. Henry L. Whitney, without whose help I could not have presented this paper in any satisfactory way. Above all, however, I am indebted to Professor George H. Chase for his many suggestions and his constant encouragement, and to Mr. L. D. Caskey of the Boston Museum of Fine Arts for his permission to publish this very important vase.

Archaeological Institute of America

THE PORTICUS OF GAIUS AND LUCIUS

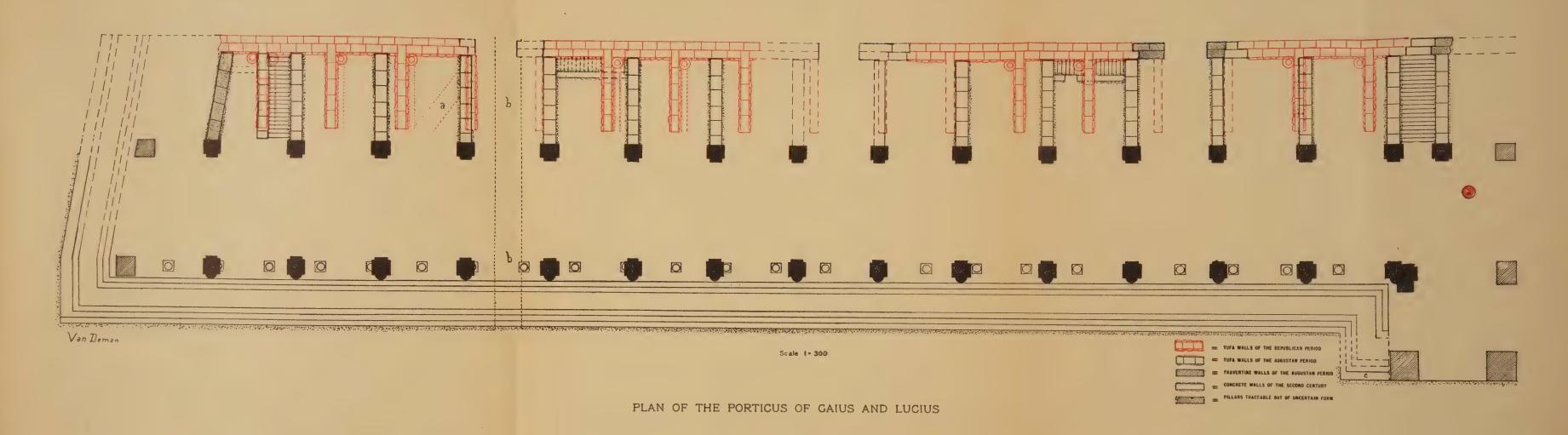
[Plate I]

THE extensive remains on the north of the Forum occupying the space between the Argiletum and the street adjoining the temple of Antoninus and Faustina are commonly regarded as belonging to a single monument, to which, as a whole, is applied the name of the basilica Aemilia. A close examination, however, makes it evident that these remains represent two distinct monuments of almost equal size and importance, which are not only structurally independent, but the work of two different periods. The earlier of these monuments consists of the large hall on the north, correctly recognized as the basilica Aemilia, with which was originally united in structure, though not in architectural plan, the row of small rooms, or tabernae, on the south, the remains of which are still visible below those of the following period. The other and later monument, which was but little inferior in size and magnificence to the former, consists of the long colonnade, or porticus, adjoining the Forum on the north, into which was incorporated the row of larger rooms, or tabernae, which replaced those of the earlier period.

While the present discussion is, in the main, concerned with the later monument, a brief examination of the other and earlier one may not be unprofitable. The more important part of this monument, the basilica proper, consisted of a spacious hall more than 90 m. in length and about 27 m. wide, which was enclosed on both sides, originally, by walls of opus quadratum. The main door of the basilica was, it is probable, at

¹ For the south wall of the basilica, see Plate I, the red wall on the north.

² The ends of the basilica, as well as a part of the north side, are not yet completely excavated.



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the end opposite the Curia. On the side towards the Forum, however, it was entered also by three smaller doors, one of which, that towards the east, has been preserved (Fig. 1).²

The orientation of the building, which is, in general, that of the more important of the earlier monuments on the west of the



FIGURE 1. - REMAINS OF A DOOR OF THE REPUBLICAN BASILICA AEMILIA.

Forum, notably the Tabularium and the temples of Saturn and Concord, did not differ materially, it is probable, from that of

¹ Until very recently the existence of the central door only has been recognized. The failure to recognize the existence of the other two has led to the assumption that the door of a building, identified as the basilica Aemilia, a part of which is represented on a fragment of the marble plan (Hülsen, Röm. Mitt. XX, p. 53, and Fig. 13), was that in the centre. From a comparison, however, of the position of the word basilica, which is partly preserved, with that of the same word on the corresponding plan of the basilica Julia (Richter, Top. p. 84, Fig. 2; Hülsen-Carter, Roman Forum, p. 22, Fig. 5), it is evident that the door is probably that farther toward the west.

² At a very late period this door was filled in by a rough wall made of broken stones and marble (see Fig. 1).

the older building or buildings replaced by it.¹ Though no remains of the pavement are left, the general level of the building, which was about 13 m. above sea level,² is clearly indicated: (1) by the level of the top of the foundations of the outer walls; (2) by the well-preserved remains of the tufa base of one of the columns supporting the nave of the earlier basilica;³ and (3) by the depth of the walls of opus caementicium in which the bases of the columns of the later basilica are set,⁴ as well as of the refuse material used as filling between these walls.

The small rooms on the south, the tabernae novae (Fig. 2),⁵ were at least seventeen in number, including those into which the three doors ⁶ of the basilica opened. They were from 4.4 m. to 4.5 m. wide and at least 7.75 m. long. Their orientation was the same as that of the basilica in their rear. Their level was, however, slightly lower, being about 12.75 m. above sea level. Though no remains of the pavements have been preserved, their general position is still clearly traceable not only in the height of the foundations of the walls, but especially in the level of a number of circular travertine curbs which were set in the pavement of the different rooms,⁷ through which the water from the upper stories was conducted into a small sewer underneath the floor.

- ¹ The line of direction of the street forming the eastern boundary of the Forum before the time of Augustus (Hülsen-Carter, *l.c.* pp. 160 f. and pl. III) agrees practically with that of the minor axis of the basilica. The same general orientation is recognizable also in the very early pavement of *cappellaccio*, 10.6 m. above sea level, which has been laid bare during recent years in front of the temple of Julius Caesar.
- ² The fixed point of reference from which the levels given throughout this discussion are measured is that quoted in the valuable plan made by the School of Engineers of the University of Rome (*Media Pars Urbis*, Istituto Geografico Militare, Firenze, 1911) for the broad step in front of the basilica, which is 13.37 m. above sea level.
 - ³ Figure 3, the tufa base on the right.
 - ⁴ Figure 3, the concrete wall on the left.
- 5 The name tabernae novae was applied to these rooms until a much later period than is commonly supposed.
- ⁶ It is possible that two at least of these doors belong to the later period. The unsymmetrical position of the one which is left (see Figs. 1 and 2), however, with reference to the walls of the later tabernae on either side of it, argues for their earlier origin.
 - ⁷ See Plate I and Figure 2.

The type of construction used both in the basilica and in the tabernae at the earlier period is opus quadratum. The outer wall of the basilica, which is from 1.16 m. to 1.19 m. wide, is composed of two narrower walls, 58 cm. to 59 cm. in width, which are structurally independent, though contiguous. The foundation of this double wall, however, which is from 1.35 m. to 1.50 m. wide, consists of a single structural unit. The walls between the shops, the alternate courses of which tail regularly



FIGURE 2. - REMAINS OF THE TABERNAE NOVAE.

into the wall of the basilica in their rear, are from 57 cm. to 59 cm. in width, while the foundations are from 40 cm. to 50 cm. wider. The material used in the walls both of the basilica and of the tabernae is reddish brown tufa. The foundations, however, are of the grayish yellow tufa so common in the earlier republican monuments. The blocks are from 57 cm. to 58 cm.

¹ The walls of several of the rooms are at present traceable only by the remains of these courses, which are still left in the walls of the basilica.

² Van Deman, 'Methods of Determining the Date of Roman Concrete Monuments,' A.J.A. XVI, 1912, p. 243.

high, and are normally from 1 m. to 2 m. long. The joints are closely fitted and the technique is, in general, very fine.

Of the architectural decoration of the basilica of this period as a whole but little remains. The foundations and the square base of one of the columns on the south side of the nave have, however, been preserved, on top of which is a circular fragment, the exact nature of which is not clear (Fig. 3). The lower



FIGURE 3. — THE BASE OF A COLUMN OF THE BASILICA OF THE REPUBLICAN PERIOD.

part of the base, which is much larger than those belonging to the columns of the basilica of the following period, was about 1.65 cm. square, while the fragment which rests upon it was at least 1.05 m. in diameter.¹ The material used for the base, as

¹ The size of the base and especially of the circular fragment above it is of interest in its bearing upon the question of the provenience of the noted columns of Phrygian marble, 1.19 m. in diameter, which adorned the nave of the earlier church of St. Paul (Lanciani, B. Com. Rom. 1899, pp. 177–185, Hülsen, l.c., XVII, p. 52, n. 1), since the diameter of the columns represented by these remains would

well as for the foundation on which it rests, is the grayish yellow tufa of which the foundations of the outer wall are made.

Two important restorations of the basilica are clearly traceable. In the first of these, which was occasioned, as is evident from the condition of the walls, by a destructive fire, the greater part of the superstructure was entirely rebuilt. While the orientation and the general plan 1 of the building remained unchanged, the level was raised at this time to its present height, which is 14.27 m. above sea level. A marked change in construction is noticeable also. While the material used in the outer walls is reddish brown tufa of the same kind as that of the original structure, the blocks are from 3 cm. to 5 cm. higher 2 as well as considerably longer than those of the earlier period. On either side of the doors the earlier tufa was replaced, for the sake of strength, by travertine.3 Instead, also, of the separate foundations of tufa on which the several bases of the columns of the earlier basilica rested, continuous walls of opus caementicium were built, in which the bases of the new columns were set.4 The opus caementicium of which these walls are made is composed of caementa, for the most part, of reddish brown and grayish yellow tufa, and dusky red mortar.

Concerning the façade of the basilica of this period little is definitely known. From the numerous architectural fragments which remain, the general style of decoration on the inside of the building is, however, clear. The nave and aisles were supported by three rows of columns of African marble, 85 cm. in diameter, with bases and Corinthian capitals of white marble.

be, when covered with stucco, almost identical with that of the columns referred to. No traces of any bases corresponding to this in size have been found, however, in the basilica of the later period.

¹ No exact plan of the building is, at present, possible, since the excavations are as yet incomplete.

² The courses are normally from 62 cm. to 63 cm. in height, that is, a little more than two Roman feet. Cf. the height of the courses in the earlier building, p. 17.

³ See Plate I and Figure 1.

⁴ See Figure 3, the concrete wall on the left. The same method of construction is used in the basilica Julia. The failure to recognize this has led to the error of assuming that the foundation walls between the bases of the pillars at the northwest corner of the building, which are of opus caementicium faced with opus reticulatum, are independent and belong to an earlier monument.

Above these columns was an entablature of exquisite workmanship, which was also of white marble. On a portion of the architrave belonging to this entablature the remains of an inscription have been preserved which records the restoration of the building by Aemilius Paullus.¹ A second row of columns, 55 cm. in diameter, which are of the same marble as the columns below, supported the wooden ceiling of the galleries over the aisles.

The row of rooms, or tabernae, on the south of the basilica, which had been also, in large part, destroyed by the fire, were not restored. The rooms by which they were replaced were of a larger size, and formed a part architecturally as well as structurally of the new porticus which arose in front of them.

In consequence of the change in orientation and level which accompanied the restoration of the basilica and the monuments near it, the earlier sewers 2 were, in large part, destroyed. In their place two new sewers of massive construction were built at the higher level. One of these, the so-called Cloaca Maxima, passing to the west of the basilica, followed the line of the Argiletum and of the street on the north of the Forum to a point a little beyond the shrine of Venus Cloacina, where it turned sharply to the south toward the Tiber. The walls and vault of this sewer are built, for the most part, of large blocks of tufa and travertine. In certain portions of its course, however, opus caementicium was used instead.3 The second and no less important of the new sewers 4 crossed the basilica obliquely from the northeast to the westernmost of the three doors on the south, and, passing underneath the porticus at right angles to its main axis, emptied into the other sewer not far from the

¹ Hülsen, Röm. Mitt. XVII, p. 52.

² Considerable remains of one of these sewers are still left, which are visible, 3 m, to 4 m. below the present level of the porticus, under one of the later tabernae (Plate I a). The type of construction of this sewer, which is opus quadratum made of low blocks of cappellaccio, suggests a very early period. Since, however, the level of the top of the vault is 20 cm. to 30 cm. higher than that of the republican pavement near (Hülsen, l.c., XX, p. 67, and Fig. 21 x, y), which was probably not destroyed earlier than 210 B.C., it must be assigned to a period later than that date.

³ Narducci, Fognatura di Roma, p. 41 and Tav. 6.

⁴ Plate I. The two sewers are, strictly speaking, two branches of a single sewer.

shrine of Venus Cloacina. At the point where this sewer passed underneath the row of columns on the north of the nave of the basilica, the channel is divided by a massive pillar on which rests the foundation of one of the columns above. The level of the floor of the sewer is somewhat higher than that of the so-called Cloaca Maxima, while the top of the vault is but a little below the pavement of the basilica. The walls of the sewer beneath the basilica, with the vaults as well, are built, so far as seen, of massive blocks of tufa and travertine. Underneath the porticus, however, opus caementicium is used, which is of the same type as that of the walls supporting the columns of the basilica.

At a very late period the basilica suffered again from fire. The walls of opus quadratum were, at this time, partly replaced by those of opus caementicium faced with brick, the remains of which are still preserved.

The entire space between the basilica and the Forum was occupied, as has been said, by a great porticus, or colonnade, which, though independent in structure and in architectural plan, was closely connected with the basilica in its rear. The relative date of the two monuments is shown very clearly by the following facts. The more important branch of the massive sewer which was built at the time of the first restoration of the basilica passed, as has been seen, beneath the pavement not only of the basilica but of the porticus as well. The walls of this sewer, in that portion of its course which lies below the porticus, are not only identical in type of construction with the foundations of that building, but are structurally a part of them, as is seen clearly in the continuity of the mass of opus caementicium of which both the sewer and the foundations are made. The erection of the porticus must, therefore, have been contemporaneous with the building of the sewer. It is clear, then, that it cannot have differed greatly in period from the restoration of the basilica, in connection with which the sewer was This conclusion is confirmed by the agreement of the two monuments both in the materials and in the methods used in their construction.

The general orientation of the porticus is the same as that

of the basilica. The line of the western front, however, following that of the street beyond, meets the façade towards the Forum at an acute angle, concealing the lack of harmony in the orientation of the older basilica and the new Curia. The level of the main corridor, which is shown not only by the height of the concrete foundations but also by the remains of portions of the original pavement, is 14.03 m. above sea level. The level of the lower step on the south is 12.75 m. above sea level, differing but 15 cm. from that of the lower step of the temple of Julius Caesar. The entire length of the porticus in front is 102 m.¹, and its width, including the steps and the tabernae, is 20.4 m. At the east end of the building is a broad wing, the front of which projects 7.25 m. beyond the façade of the colonnade.

The porticus proper consists of the broad flight of steps which surrounds the building on the south and west, the colonnade and the tabernae in the rear. On the south side four steps, 20 cm. to 22 cm. in height, lead from the street adjoining the Forum to a broad platform, 1.35 m. in width, from which a second flight of three steps ascends to the corridor above. Owing to the higher level of the adjoining street, the steps at the west end of the building were but six in number.² The facade of the porticus towards the Forum was composed of an arcade of fifteen arches, which were supported by massive pillars of white marble, on the outer faces of which were engaged columns. The width of the pillars was about 1.35 m., while the diameter of the engaged columns in front was 89 cm. The distance between the centres of the pillars was 6.35 m. Above the arches was a Doric entablature, on top of which rested an upper arcade similar to that below. traces remain of the façade at either the east or the west end of the building except the holes left in the mass of concrete by the removal of the tufa and travertine foundations on which the heavier portions of the structure rested.³ From the repre-

¹ The length at the rear of the tabernae is several metres less.

² The street at the east end of the building is not yet fully excavated. The number of steps at that end is, therefore, uncertain.

 $^{^3}$ For the remains at the western end of the building, see Hülsen, $l.c.,\,{\rm XX},\,{\rm p.~57},\,{\rm Fig.~16}.$

sentation of the building in sixteenth century drawings, 1 however, it is probable that there was a wall of opus quadratum at the west end, in which was a door, or doors, enclosed by pillars and engaged columns.² The inner corridor was 7 m. wide. Opening upon it were sixteen rooms, the successors of the earlier tabernae novae, from three of which, as in the preceding period, doors led into the basilica in the rear. The larger of these rooms, thirteen in number, which corresponded in position to the arches of the arcade opposite, were 7.75 m. long and 5.45 m. wide. The dividing walls between the rooms ended in white marble pilasters, one of which, at the east end of the building, is still in situ. At either end of the row of tabernae was a smaller room 8 containing a stairway,4 which led to a gallery or to a second row of rooms above, the existence of which is proved, further, by the remains, in several of the tabernae below, of concrete vaults 3.2 m. above the pavement. In front of two of the tabernae traces are left also of the grooves in which the sliding doors were placed.

Of the projecting wing at the east end of the porticus no exact plan is possible. From the remains of the massive foundations of opus caementicium as well as from the position of the lower step on the south, which is still in situ,⁵ its size and general proportions are, however, clear. Its length was 9.4 m. to 9.5 m., and its width, including the steps toward the west, at least 13.25 m. From the size of the holes which were left in the concrete by the removal of the tufa and travertine blocks used for the foundations of the pillars on the south, it is probable that these were somewhat more massive than those of the façade of the porticus. The marble base of the pillar at the corner where the wing and the porticus join is still in situ.⁶

¹ For a discussion of these drawings, see Hülsen, *l.c.*, XVII, pp. 45 ff.; XX, pp. 54 ff., with the literature there referred to.

² Hülsen, l.c., XX, p. 56, Fig. 15; Hülsen-Carter, R.F. p. 129, Fig. 63.

³ Beyond the stairway on the west, is a very small room of irregular shape, the purpose of which is not clear.

⁴ In the second century two smaller stairways were added nearer the centre of the building.

⁵ See Plate I, c.

⁶ For the exact dimensions of this base, see Hülsen, l.c., XVII, p. 45, Fig. 13.

The foundations both of the porticus, with the exception of the tabernae, and of the projecting wing consist of a solid platform made of opus caementicium, in which are set the travertine foundations for the pillars. The lower part of the foundations of the walls of the tabernae is also of the same concrete, above which is a heavy wall 1.2 m. to 1.5 m. wide made of blocks of reddish brown tufa. The walls above, which are identical in type with those belonging to the restored portions of the basilica, are made also of reddish brown tufa. The width of these walls is 89 cm. to 90 cm., and the height of the courses of blocks of which they are made 62 cm. to 63 cm. The vaults above the tabernae rest on projecting courses of travertine, as in the corresponding rooms adjoining the basilica Julia. The opus caementicium of which the foundations are made is composed of caementa of medium size, which are, for the most part, of the reddish brown tufa used in the walls of opus quadratum, mixed with dusky red mortar. For the sake of lightness, however, grayish yellow tufa was used for the caementa of the vaults. The material employed in the architectural decoration of the porticus was, so far as can be determined, Luna marble. The technique was of the highest order.

At a very late period the porticus, like the basilica adjoining it, was, in large part, destroyed by fire. For the massive pillars of white marble, fourteen in number, not including those at the ends of the façade, were substituted twenty-four small columns of red granite, 50 cm. in diameter, with bases of white marble 75 cm. square. The distance between the centres of of these was 3.8 m.¹

A little beyond the stairway at the east end of the row of tabernae, not far from the centre of the aisle of the porticus, is a *pozzo*, which from the type of construction used in the lower part of the wall lining it, must be assigned to a very early date.

For the determination of the date to be assigned to the monument just described, a brief consideration is necessary of the development of the adjoining monument, with which it was so closely united, the basilica Aemilia. In 179 B.C., as

¹ The distance between the centres of the pillars was 6.35 m. For a reconstruction of the façade, see Hülsen, *l.c.*, XX, p. 58, Fig. 17; Hülsen-Carter, *l.c.*, p. 132, Fig. 66.

is well known, Aemilius and Fulvius built, behind the tabernae novae, a basilica, which bore the name of basilica Aemilia et Fulvia. In 78 B.C. M. Aemilius Lepidus restored this building, but, so far as can be determined, without change either in size or in general plan. In 54 B.C. the curule aedile, Aemilius Paullus Lepidus, began, according to Cicero, a second restoration of this same basilica, in addition to or in place of which, however, before its completion, with money given him for this purpose by Julius Caesar, he built another, which was much larger and more magnificent. After the fire of 14 B.C., by which the greater number of the monuments north and east of the Forum were either wholly or in part destroyed, this building was extensively restored by the consul, Paullus Lepidus, with money furnished in large part by Augustus. In the fifth century, after another destructive fire, the basilica was again restored in the rude fashion of the time.

Of the several groups of remains which are recognized as representing the basilica Aemilia of the various periods, the earliest is that to which belong the walls of reddish brown tufa with foundations of grayish yellow tufa. The erection of the building described above ³ to which these walls belong marks the beginning of the structural history of the basilica, so far as it can be, at present, ⁴ determined. For the date of this building the evidence, fortunately, is conclusive. In the year 54 B.C., as has been said above, Aemilius Lepidus rebuilt the basilica on an enlarged scale on land purchased with money given him by Julius Caesar. Since the building just referred to, which is a single structural unit, occupied the entire space between the Argiletum and the street towards the east, any further enlargement in its plan, especially any extension towards the northwest such as that

¹ Ad. Att. IV, 16, 14: Paullus in medio foro basilicam iam paene texuit iisdem columnis, illam autem quam locavit facit magnificentissimam. Quid quaeris? nihil gratius illo monumento, nihil gloriosius. Itaque Caesaris amici... in monumentum illud quod tu tollere laudibus solebas, ut forum laxaremus et usque ad atrium Libertatis explicaremus, contempsimus sexcenties HS. Cf. Plutarch, Caes. 29, and Appian, Civ. 2, 26.

² The relation of the two buildings is not clear. From the words of Cicero, however, it is certain that both are to be placed on the north side of the Forum.

⁸ Pp. 14 ff.

⁴ It is to be hoped that the excavations now in progress may bring to light the remains of other and earlier walls.

described by Cicero, is impossible. The building in question cannot, therefore, have been erected earlier than 54 B.C. That it was not erected after that time is equally clear, not only from the absence of any reference to a reconstruction on a larger scale,2 but especially from the level of the tabernae, which, towards the west, are more than a half metre below the pavement of the Forum of the following period. It is safe to conclude, therefore, that the building in question is that erected by Aemilius Lepidus in 54 B.C. This conclusion is, further, confirmed by the type of construction, which is that found in other monuments of the same general period. In the year 14 B.C., as has been said above, the basilica was, in large part, destroyed by fire. To the period immediately following this disaster must be assigned, therefore, the first restoration of the building, to which belong the coarser walls of reddish brown tufa which have been described above.³ Conclusive evidence for this period is furnished, also, by the level of the building, as well as by the type of construction, which is that characteristic of the time of Augustus.4

With this restoration of the basilica the erection of the porticus in front of it was closely connected. It must, therefore, be assigned to the same general period, that is, to the later years of the reign of Augustus.

Among the more important monuments built by Augustus during the latter part of his reign, especial mention is made of the porticus of Gaius and Lucius,⁵ to which was applied, at a later time, the name of porticus Julia.⁶ Concerning the site and even the existence of this monument widely differing opinions prevail. According to the opinion of certain scholars,⁷ the porticus did not exist as a separate monument, but is to be identified rather with the north aisle of the basilica Julia, which

¹ See above, p. 25, n. 1.

² The use of *restituit* in the inscription recording the restoration of the monument in the following period is worthy of note (see above, p. 20). Cf. the use of *locavit* in the description of the erection of the building (see above, p. 25, n. 1).

 $^{^5}$ Suet. Aug. 29: quaedam etiam opera sub nomine alieno . . . fecit, ut porticum basilicamque Gai et Luci.

⁶ Dio Cassius, LVI, 27, 5; Schol. Pers. Sat. 4, 49.

⁷ See, for example, Jordan, Top. II, p. 210; Richter, Top. p. 361.

also bore originally the names of Gaius and Lucius. Other writers ¹ hold, on the contrary, that the porticus was a distinct monument on the opposite side of the Forum, the remains of which are to be recognized in those described above. That the latter opinion is correct is shown clearly by the following facts.

In a much vexed passage of an ancient scholiast we read that the puteal Libonis stood "in the porticus Julia near by the Arcus Fabianus." 2 Concerning the general site of one of the three monuments here mentioned, the arcus, or fornix Fabianus, there is, fortunately, no lack of evidence. It stood, according to the ancient writers, on the north side of the Forum, near the beginning of the Sacra Via, not far from the Regia and the temple of Vesta. The monuments connected with it in the passage just quoted must also have been situated in the same vicinity, that is, on the north side of and adjoining the Forum or at the beginning of the Sacra Via. Since the remains of the porticus described above 3 are so situated, and since the possibility of the existence of a second porticus in the same vicinity is precluded by the lack of space, it is necessary to conclude that the porticus in question is that of Gaius and Lucius or, as it was called later, the porticus Julia. It is not improbable that the pozzo referred to above,4 which until a late period occupied a prominent place in the aisle of the porticus, is to be identified as the puteal Libonis.5

At the northeast corner of the Forum there have been found at various times a number of fragmentary inscriptions dedicated to Gaius and Lucius Caesar as well as one to Augustus,⁶ which from their general style seem to belong to a single monument. In addition to these fragmentary inscriptions the excavations in recent years have brought to light, amid a heap of broken marble, on the steps at the east end of the porticus, a monumental inscription, 4.8 m. long and 1.5 m. high, which is dedi-

¹ See, for example, Thédenat, Forum Romain, pp. 143 and 255.

² Schol. Pers. Sat. 4, 49: foeneratores ad puteal Scribonis Licinii (l. Scribonii Libonis) quod est in porticu Iulia ad arcum Fabianum.

⁸ Pp. 21 ff. ⁴ P. 24.

 $^{^5}$ A few large pieces of travertine near the front of the wing at the east end of the porticus which seem to be $in\ situ$ may possibly belong to the fornix Fabianus.

⁶ For these inscriptions, see Hülsen, l.c., 1899, pp. 60-61.

cated to Lucius Caesar.¹ Not only is this inscription practically complete, but the huge blocks on which it is cut lie still almost in their original order.² An examination of these blocks reveals, further, the fact that they lie in a line parallel, in general, to that of the west front of the projecting wing at the end of the porticus. It is safe to assume, therefore, that the inscription belonged originally to that structure, forming a part most probably of the lower entablature. It is probable, also, that a similar inscription to Gaius Caesar stood in a corresponding position on the upper entablature or on that facing the east, while the inscription to Augustus occupied a place on the front of the monument facing the temple of Julius Caesar. The exact date of the erection of the sacellum as well as of the porticus of Gaius and Lucius, of which it formed a part, may very well have been, as suggested by Hülsen,³ 2 B.C. or a little later.

The late restoration of the porticus, as of the basilica adjoining it, cannot have been earlier than the fifth century, as is shown clearly by the type of construction. It is probable, therefore, that it is to be assigned, as has been suggested, to the period of Honorius.

ESTHER BOISE VAN DEMAN.

Rome, September, 1912.

¹ For a discussion of this inscription, see Hülsen, l.c., XX, pp. 59 ff.

² See Vaglieri, Gli Scavi Recenti nel Foro Romano, p. 84, Fig. 38.

³ L.c., XX, pp. 60 f. ⁴ Hülsen, l.c., XVII, p. 54.

GREEK INSCRIPTIONS FROM SARDES II1

Honorific Inscriptions

(a) to Officials (Nos. 2, 3)

2. Cylindrical pedestal of bluish marble found in April, 1910, a little lower than the steps of the so-called stoa (cf. A.J.A. XIV, 1910, p. 406). Projecting moulding at top and Height 1.00 m.; diameter at top 0.81 m., at bottom Letters 0.015 m. to 0.02 m. high, the larger letters in lines 2-4. In centre of the bottom round hole 0.045 m. deep and 0.04 m. in diameter. Bottom rough, except for smooth bearing margin 0.14 m. wide. Similar margin at top about 0.18 m. wide. On top round hole in centre 0.04 m. deep, 0.07 m. in diameter, and running thereto from rear a narrow channel 0.38 m. long. The cylinder must have had on the top a slab bearing a statue and at the bottom a stone base. Letters A, E, I-I, Θ , M, Σ , Y, Ω , Φ ; somewhat roughly cut, apices very slight. Space is left uncut in Il. 6, 11, 12, 16, 18, 21. Date first century B.C. Inv. A. 3.

ό δημος ἐτίμησεν Ἰόλλαν Ἰόλλου χρυσοῖς στεφάνοις ἀριστήοις δυσὶν καὶ ἰκόνι χρυση καὶ ἄλλη χρυση ι

οις δυσὶν καὶ ἰκόνι χρυσῆ καὶ ἄλλη χρυσῆ κολοσσική καὶ ἄλλη χρυσῆ ἐφίππω καὶ ἄλλαις χαλκαῖς δ΄ καὶ ἀγάλμασιν μαρμαρίνοις τρισὶν καὶ ἀλλαις γραπταῖς δ΄ ἀνδρα ἀγαθὸν καὶ φιλόπατριν ὄντα καὶ πολλὰς πρεσβείας τελέσαντα ἐπιτυχῶς, καὶ πολλλούς κινδύνους καὶ ἀγῶνας καὶ ἐγδικασίας ὑπὲρ τοῦ δήμου ἀναδεξάμενον καὶ κατορθώσαντα, καὶ στρατηγήσαντα ε΄ κάλλιστα, καὶ πολλὰ καὶ μεγάλα τῶν συνφερόντων περιποήσαντ(α) τῆ πατρίδι, καὶ γυμνασιαρχήσαντα ἐκ τοῦ ἰδίου βίου ἐπιφανέστατα, καὶ ἀγωνοθετή-

¹ No. I was published in A.J.A. XVI, 1912, pp. 11–82.

10

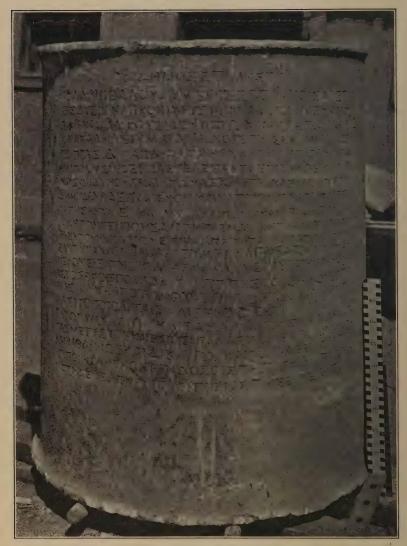


FIGURE 1. - GREEK INSCRIPTION FROM SARDES.

10

σαντα Παναθήναια καὶ Εὐμένηα παρ' έατοῦ, καὶ γενόμενον ἱερέα τῆς 'Ρώμης, καὶ καλλίστας ποιήσαντα θυ(σί)ας τοῖς θεοῖς πολλάκις ὑπὲρ τῆς τοῦ δήμου σωτηρίας, καὶ τὰ ἀπὸ τῶν θυσιῶν πάντα διανίμαντα
πᾶσι τοῖς πολίταις καὶ ξένοις ἐν τῆ ἰδία οἰκία καὶ
ἐν τῶ γυμνασίω, καὶ τὰς ἄλλας ἄρξαντα ἀρχὰς
τὰς μεγίστας καὶ ἐν πάσαις ἀναστραφέντα ἀνδρήως
καὶ καθαρήως καὶ δικαίως, καὶ πολλὰς ἐν παντὶ τῶ
βίω ποιησάμενον ἐπιδόσεις τῆ πατρίδι, πάσης
ἀρετῆς ἔνεκεν καὶ εὐεργεσίας τῆς εἰς ἑαυτόν.

15

20

Translation

The People honored Iollas son of Iollas with two golden wreaths, rewards of merit; with a golden portrait-effigy, a golden colossal portrait-effigy, and a golden equestrian portrait-effigy; with four bronze portrait-effigies; with three marble portrait-images, and with four painted portraits. He was a good man and a lover of his city. He efficiently served many times as ambassador. On behalf of the People he took upon himself and successfully terminated many perils, trials, and lawsuits. He five times held with distinction the office of strategus, and secured for his city many great benefits. He most brilliantly performed at his personal expense the duties of gymnasiarch. He conducted at his own cost the Panathenaic and Eumenean games. He was appointed priest of Rome. On many occasions he offered to the gods sumptuous sacrifices for the People's welfare, and distributed all the remains of the sacrifices among all the citizens and aliens at his own house and in the gymnasium. He filled the other principal offices, and in all of them displayed vigor, integrity, and justice. Many were the gifts which in the course of his life he bestowed upon his city. The above honors were a tribute to his many noble qualities and his services to the People.

This is one of the rare inscriptions which summarize public distinctions bestowed on various occasions. When two or more honors were simultaneously conferred, each was, as a rule, different from the rest, and had, therefore, to be separately described. Thus at Teos (C.I.G. 3085) the six awards made at one time were a gold wreath, a painted portrait, a full-length painted portrait, a bronze effigy, a "golden" effigy, and a marble image. Six such assorted distinctions were bestowed at Per-

gamum (Ath. Mitt. XXXII, 1907, p. 246); five at Iasos (B.C.H. XV, 1891, p. 546), at Priene (Ins. v. Priene, Nos. 112, 113); four at Cyme (C.I.G. 3524), Mylasa (B.C.H. V, 1881, p. 96), and Priene (Ins. v. Priene, No. 114). Illustrations of the prevalence of this custom might be almost indefinitely multiplied. 1 But when several identical honors to one person are recorded together, it is usually because they were awarded by different bodies or at different times. in Le Bas-Wadd. 1730 a (=Syll, 291) the sixteen golden wreaths and three bronze statues were given by nineteen different cities or leagues; in Syll. 165 (Athens) there are eight wreaths and several donors. So also two or more identical honors given to one person on different occasions might, as in Inscr. Brit. Mus. IV, 1, No. 787 (= Le Bas-Wadd. 1572, bis: Cnidus) and in the present case,² be summarily scheduled on one monument. But why should this ever have been done? In place of this summary, it would have been simpler, and it was certainly more usual, for each honorific decree to be recorded below its own particular statue. Now we must remember that the award of a gold wreath, statue, or other expensive distinction, conveyed only the right to buy and display it. After being authorized by municipal decree it had, in most cases, to be paid for by the person honored or by his friends or relatives.3 Only in few and special cases did the city itself meet the cost, a fact which explains how Sardes could afford to be so munificent (cf. Francotte, Législation athénienne sur les distinctions honorifiques, 1900, p. 60; Miss Welsh, B.S.A. XI, 1904-1905, p. 37). What if Iollas

 $^{^1}$ B.C.H. IX, 1885, p. 515 (Sparta), is not relevant, since its twelve statues were all given by individuals. In Syll. 289 the four statues may all have been different, since one was apparently colossal; if they were not, that is an exception to the rule. In C.I.G. 2804 and R. Ét. Gr. XIX, 1906, p. 143, the "third" and "second" statues to the same person were probably awarded and set up at different times.

² See above, l. 20: ἐν παντὶ τῶ βίω. In *Inser. Brit. Mus.* IV, 1, 787, the perfect tenses ἐστάκει, τετιμάκει, imply that past events are there reviewed, and it is simply incredible, though assumed in Hirschfeld's notes, that all these honors, each variety in triplicate, should have been conferred at once and by a single decree.

³ Thus when Gorgias erected to himself (posuit sibi, Plin. N.H. XXXIII, 83) his famous statue at Delphi, he was merely carrying into effect an honor bestowed by the Delphians.

did not care to avail himself of all these opportunities for selfglorification? In that case it is possible that the statue standing on our pedestal was the only one that he saw fit to erect. And, if so, it was natural that all the honors to which he was entitled should here be recorded as they are. This theory of economy on the part of the person honored affords a reasonable explanation of our summary, and seems applicable also to other inscriptions of this type (e.g. Le Bas-Wadd. Nos. 1143 and 1594 = R. Ét. Gr. XIX, 1906, p. 101; I.G. XII, 1, 58). For such summaries see J.H.S. IX, 1888, p. 248; B. C.H. XIII, 1889, p. After so long a career Iollas must have been, when this text was inscribed, considerably past middle age. That he was among the very richest citizens as well as a public benefactor of the first rank (cf. B. C.H. X, 1886, pp. 52, 53; Rh. Mus. XLIX, 1894, pp. 425 f., pp. 436 f.) is shown not only by his list of services, but by the fact that the monuments which he was authorized to erect exceed in number and costliness those of that Cnidian inscription (Inser. Brit. Mus. IV, 1, No. 787) which for inexpensive municipal generosity has been till now the most important document. To Artemidorus, the friend of Julius Caesar (Pauly-Wissowa, s.v. Artemidorus No. 28), Cnidus allowed the erection of three bronze, three "golden," and three marble effigies. Iollas had the right to display one more, 1 not to mention four paintings, and among his fourteen authorized portraits, sculptured or painted, one was colossal and one equestrian. Artemidorus received, however, an eponymous festival and quasi-divine honors of which Iollas could not boast.

The date can be fixed within fairly narrow limits. The events referred to in the text must have preceded the rise of Augustus to supreme power, because the mention of the festival in honor of Eumenes, and of the cult of Rome only, shows that the cult of Augustus, which must have spread to the large cities of the province soon after 27 B.C., had not in Iollas' day appeared at Sardes. On the other hand, the omission of the iota adscript, still regularly used in the *Ins. v. Priene*, Nos. 111 to 120, about 80 B.C., and the η for $\epsilon \iota$ before vowels, point to a date not far from the Augustan period. The inscription cannot

¹ In Syll. 289 we have also four bronze εἰκόνες.

then be much earlier than 50 B.C., or much later than 25 B.C., and the thirty years preceding its date were those probably covered by Iollas' career.

For honorific inscriptions of this type cf. Reinach, Traité d'épigr. gr. pp. 372, 375, n. 1; Liermann, Diss. Halenses, X, 1889, p. 16, 2; p. 52, n. 7; Liebenam, Städteverwaltung, p. 122, n. 2; B.C.H. V, 1881, p. 325; X, 1886, pp. 52, 53; O.G.I. No. 571, and references there in note 4; K.P. I, No. 170, ll. 17, 18; Wilhelm, Neue Beiträge z. gr. Inschrk. (Wiener Sitzb. CLXVI, 1911), pp. 55 f.; Gerlach, Griechische Ehreninschriften, 1908.

Line 2. 'Ιόλλαν' Ιόλλου. Iollas is best known in Macedonia as the name of the son of Antipater (Diod. XIX, 11, 8; 35, 1; Curtius Rufus, X, 10; Hoffmann, Die Makedonen, pp. 207 f.; Beloch, Gr. Gesch. II, p. 83). It is the same as the forms 'Ιόλλαος, 'Ιόλας 'Ιόλαος, so wide-spread in late Hellenistic and Roman times, but in earlier days confined to the countries north of Greece (cf. von Premerstein, Ath. Mitt. XXXIV, 1909, pp. 240, 266, and references there). For Iollas as a name in Asia Minor, cf. the medical writer of the third century B.C., from Bithynia, Pliny, N.H. XX, 73, 76; in Phrygia, Ramsay, C.B. I, p. 143, No. 30 (Εἰόλλας); No. 31 (three times, genitive Ἰόλλα, second century A.D.); p. 155, No. 62 (gen. 'Ιόλλου); 'Ιόλλας 'Ιόλλου at Hierapolis (Brit. Mus. Cat. of Coins, Phrygia, p. 246); in Pisidia, Le Bas-Wadd. 1201; in Lydia, K.P. I, No. 187 (119-120 A.D.), and Mouseion, II, 1876-1878, p. 41 (gen. 'I $\delta\lambda\lambda\alpha$). The feminine form 'I $\delta\lambda\lambda\eta$ occurs in C.I.G.add. 4380 b², and Leemans, Verh. Amsterdam Akad. XVII, 1886, No. 11 (Erythrae). In Mysia there was a place named Iolla, which appears on coins as early as the fourth century B.C. (cf. Head, Hist. Num.2, 1911, p. 528; Brit. Mus. Cat. of Coins, Mysia; Beloch, Gr. Gesch. II, p. 295).

Line 2. χρυσοις στεφάνοις ἀριστήσις. For στέφανος ἀριστείον, where ἀριστείον is a noun, cf. Sitzb. Wien. Akad. CXXXII, 1895, II, p. 29; Syll. Nos. 86, 32; 202, 44; O.G. I. Nos. 248, 32, 33, 46; 332, 6, 7, 45; 763, 26; 771, 24, note 10; Wilhelm, Urkunden Dram. Aufführungen, p. 238; B. C. H. XIV, 1890, p. 365; XXXIX, 1905, pp. 179 f.; T.A.M. p. 17; I.G. XII, v, 1, 274; Ins. von Pergamon, Nos. 160, B, 31, 44; 246, 7 and 45;

256; C.I.G. Nos. 2376, 2424, 3601; Diod. XVII, 48, 6; Polyb. XVI, 26, 9; Josephus, Ant. XIV, 153; R. Ét. Gr. XIII, 1900, pp. 279 f.; Curtius, Beiträge zur Geschichte und Topographie Kleinasiens, p. 68. In Ath. Mitt. XIX, 1894, p. 26, we have a different order, χρυσέφ ἀριστείφ στεφάνφ. η for ει before a vowel as in ἀριστήσις (cf. l. 19 ἀνδρήως, l. 20 καθαρήως), occurs as early as 170 B.C. but is especially characteristic of Augustan or early Imperial date, frequent in the last half century B.C. and in the first half century A.D.; cf. I.G. III, 63, 292, 788, 789; Inscr. Brit. Mus. III, 2, p. 209; IV, 1, pp. 62, 91; O.G.I. Nos. 193, 7; 268, 15; 445, 6; 456, 56; 458 (9 B.C.), 21, 22, 24, 26, 33, 44, 46, 61, 67; 472, 5; 479, 13; 532, 41 (3 B.C.); 654, 5; Ins. von Olympia, No. 53, 23; Wiegand, Siebenter Bericht über Milet, 1911, op. cit. pp. 7, 18; I.G. III, Nos. 303–384; Larfeld, Hb. I, p. 306.

The στέφανος χρυσούς 1 was probably of a standard size (cf. χρυσῶι στεφάνωι μεγίστωι δ[ι]πλασίο[νι, Ath. Mitt. XXXV, 1910, p. 405, l. 33), which no doubt was fixed by law (cf. χρυσῶι στεφάνωι τωι έκ του νόμου, Michel, Rec. Nos. 482, 483, from Priene²). Doubtless also the law defined the difference between the plain χρυσοῦς στέφανος and the χρυσοῦς στέφανος άριστείον (cf. C.I.G. 2376 and 2377, in one of which the plain, in the other the ἀριστεῖον, is awarded); it may be assumed that the latter was the more honorable and probably the more expen-When the wreath is given and paid for by the donor instead of, as usual, by the person honored (see above, p. 32) or when its value in gold is specified (cf. Michel, op. cit. 501, ll. 15-17; 505, l. 11; 522, l. 50; and even in imperial times, cf. R. Ét. Gr. XIX, 1906, p. 118), we may assume that χρυσοῦς has its literal meaning, but in connection with statuary such as ours, especially with an εἰκὼν κολοσσική or ἔφιππος, it means no more than "gilded." Among the most sumptuous gifts of Vibius Salutaris was a small golden image of Artemis (χρυσέα "Αρτεμις), cf. Forschungen in Ephesos, II, 1912, p. 131, l. 158; pp. 188 f.;

 $^{^1}$ The illustration in Ins. v. Priene, p. 111, shows what such a wreath looked like. See also Hussey, A.J.A. VI, 1890, pp. 69 f.

² Francotte, op. cit. p. 54, regards a wreath κατὰ τὸν νόμον as one for which the person honored had to pay. But the phrase may also have implied: "and not exceeding the size prescribed by law."

Inser. Brit. Mus. III, 2, No. 481, Il. 75, 76. It was doubtless of pure metal. But in the case of large statues or busts a literal meaning for χρυσοῦς is out of the question. The statues of Gorgias and Phryne, for which "gilt" (ἐπίχρυσος) is the epithet used by Pausanias, an eye-witness (X, 15, 1; 18, 7), are usually described as "golden" (Athen. XI, 505 d; [Dio Chrys.] XXXVII, 115 R; Plut. De Pyth. Or. 15; De Alex. Fort. II, 3; Plin. N.H. XXXIII, 83). Thus Haussoullier correctly translates εἰκῶν χρυσέα ἐφ' ἵππου — "statue équestre en bronze doré" (B.C.H. V, 1881, p. 382). Since even a wreath cost in pure gold from 500 to 1000 drachmae (Francotte, op. cit. p. 61), we may be sure that a στέφανος χρυσοῦς, which like ours had to be ordered and paid for by its owner, was also in most instances made of gilt copper or bronze.

Lines 3, 4. ikóvi, etc. ι for $\epsilon\iota$ also in 1.16, $\delta\iota$ aν ι μ aν τ a. is characteristic of imperial inscriptions, cf. Ath. Mitt. XXXII, 1907, p. 250; Schweizer, Gram. der Perg. Ins. p. 52; Nachmanson, Laute und Formen der Magn. Ins. p. 40 f. Cf., for example, Paton-Hicks, Ins. of Cos, 73, ἰκόνι χρυσέη; Wiegand, op. cit. p. 67, ll. 10, 12, 16, ἰκόσι χρυσαίς, ἰκόνι χρυσή. Hepding suggests (Ath. Mitt. XXXII, 1907, pp. 250 f.) that ἄγαλμα, a cult statue, is to be distinguished from εἰκών, an ordinary portrait-statue. Such a distinction, observed as it is by correct writers, 1 may be true of Hepding's text, and of others such as Michel, Rec. 545, l. 2 (= Sitzb. Wien. Akad. CLXVI, 1911, pp. 55 f.), but cannot be generally accepted. Our inscription adds one more to a group (C.I.G. 3085; B.C.H. XV, 1891, p. 546; R. Ét. Gr. VI, 1893, p. 160 A, l. 22; Mouseion, V, 1884-1885, p. 50; etc.) telling strongly against that view, because, like our text, they mention $\dot{a}\gamma\dot{a}\lambda\mu a\tau a$ without hinting at divine honors. the other hand, statues to which such honors are paid are called εἰκόνες (Inser. Brit. Mus. IV, 1, 787, 1. 12; 893, 1. 49), while Lucian speaks of θεων εἰκόνες (De Imag. cc. 24 and 25) and Athenaeus of εἰκόνες βασιλέων . . . καὶ θεῶν (V, 201 f.). Yet Dittenberger goes too far in regarding the terms ἄγαλμα and εἰκών as indis-

¹ E.g. Isocr. Eu. 57, where $\epsilon l \kappa \dot{\omega} \nu$ (of men) and $\delta \gamma \alpha \lambda \mu \alpha$ (of Zeus) are contrasted; Hyper. VI, 21, $\dot{\alpha} \gamma \dot{\alpha} \lambda \mu [\alpha \tau \alpha \ \delta \dot{\epsilon}]$ καὶ $\beta \omega \mu o \dot{\nu} s$ καὶ $\nu \alpha o \dot{\nu} s$; same phrase in Herod. I, 131; cf. also Lys. VI, 15, $\dot{\alpha} \gamma \dot{\alpha} \lambda \mu \alpha \tau \alpha \ \tau \hat{\omega} \nu \ \theta \epsilon \hat{\omega} \nu$. Pausanias regularly observes it.

tinguishable (O. G.I. No. 352, n. 28). Hepding's theory seems sound to this extent: that owing to its dignified traditions äγaλμa probably denoted a life-sized effigy 1 similar to that of some divine being, whereas εἰκών, a vague term like our "portrait," might, unless qualified by its context, mean anything from a big statue to a small bust or statuette. We may note (1) that εἰκών goes with epithets denoting full size (e.g. τελεία, O.G.I. 270, l. 7, and see below on $\epsilon i \kappa \omega \nu \gamma \rho a \pi \tau \dot{\eta}$) which $\ddot{a} \gamma a \lambda \mu a$ appears never to need; (2) that in most lists of statuary containing an ἄγαλμα, this, as in our list, is mentioned last, as if by its importance it capped the climax.² The distinction between the terms seems to be one of definiteness, ἄγαλμα being related to εἰκών as our "mansion" to "house," the former a full-sized object, the latter a similar object of indefinite size.3 Hence, although when used alone $\epsilon i \kappa \omega \nu$ might mean a statue, while ἄγαλμα might mean a bust, we believe that, when the terms were contrasted, as in this case, by being used together, εἰκών came to denote the smaller and simpler effigy, i.e. a bust or statuette, $\ddot{a}\gamma a\lambda\mu a$ the larger and more imposing, i.e. a statue.

Lines 3, 4. χρυσῆ, etc. Sardes was the original home of such luxurious objects, the earliest example of a golden portrait-statue being the εἴδωλον χρύσεον τρίπηχυ (Herod. I, 51), offered at Delphi by Croesus, representing the bakeress (ἀρτοκόπος; ἀρτοποιός Plut. De Pyth. Or. 16) who had saved his life (cf. L. Stenersen, De hist. variisque gen. statuarum, 1877, p. 131). That statue was probably of pure gold. In Iollas' day, as above explained (p. 36), εἰκὼν χρυσῆ meant, not a golden, but a gilt-bronze effigy. We often find εἰκὼν χρυσῆ (cf. Wilhelm, l.c.; Wiegand, l.c.). In C.I.G. II, 3201 (from Lydia), we have εἰκόνες ἀργύρεος κα[ὶ χ]ρύσ[εος; cf. also B.C.H. XIV, 1890, p.

¹ ἄγαλμα did not necessarily denote a full-length effigy, since the inscription on the Pergamene copy of the Hermes of Alcamenes has proved that the term might be applied to a mere bust (Jb. Arch. I. XXIII, 1908, Arch. Anz. col. 516–518); but that ἄγαλμα did as a rule imply a statue, not a bust, seems probable, owing to the fact that ἀγάλματα of gods were in most cases full-length figures.

² E.g. Ath. Mitt. XXXII, 1907, p. 246; B.C.H. XV, 1891, p. 546; Le Bas-Wadd, 689.

³ Cp. Jebb's note to his translation of Theophr. Char. I, 34, where the $\epsilon l \kappa \omega r$ may be either a bust or a portrait-statue.

626, 28; XV, 1891, p. 546; Paton-Hicks, *Ins. of Cos*, 73; *C.I.G.* II, 3085 (from Lydia); Athenaeus 201d–203b.

Lines 3, 4. κολοσσική . . . ἐφίππω. A figure 18 ft. high was called a κολοσσός (Diod. I, 67, 1), so that a bust on that scale (εἰκὼν κολοσσική) would not have been more than 3 or 4 ft. high. Its cost, even with gilding, need not have been such as to overtax the resources of an Iollas. Yet, as above suggested (p. 33), we may well doubt whether this and other statues were ever ordered by him. The right to erect such statues as these was rarely granted, and then only to kings or to the most distinguished of benefactors. A γρυση εἰκων κολοττική occurs in Diod. II, 34, 5; an εἰκων χαλκῆ κολοσσική in Ath. Mitt. XXXII, 1907, p. 246; an εἰκων γρυση ἐφ' ἴππου of Antiochus I in O.G.I. 219 (= Michel, Rec. 525), 1. 35; of Eumenes II in B. C.H. V, 1881, p. 375; the same ($\epsilon \phi \iota \pi \pi \sigma s$) of Attalus III in O. G. I. 332 (= Michel, Rec. 515), l. 10; of Diodorus of Pergamum in Ath. Mitt. XXXII, 1907, p. 246; statuae equestres inauratae, of Verres in Sicily, 2 Verr. II, 61, 150; an εἰκων χαλκη ἐφ' ἴππου in Ins. v. Priene, No. 18 (= 0. G.I. 215), l. 22, and in Wiegand, Milet, II, 1908, p. 90, No. 10, l. 12; the same (ĕφιππος) in Ath. Mitt. XXXII, 1907, p. 246.

Line 5. ἀγάλμασιν μαρμαρίνοιs. In the note on ἰκόνι (Il. 3-4) we suggest that the difference between ἀγάλματα and εἰκόνες, originally one of mere definiteness in size, came, when the terms were contrasted as they are here, to be one of actual size. Thus εἰκὼν μαρμαρίνη, mentioned along with other εἰκόνες (Ins. v. Priene, Nos. 112, 113, 114), may denote either a marble statue or a marble bust, whereas in our case ἄγαλμα μαρμάρινον means, we believe, a marble statue as distinct from the busts (εἰκόνες). References to ἄγαλμα μαρμάρινον and εἰκὼν χαλκῆ will be found in the next note, and in Gerlach, ορ. εἰτ. pp. 51-54. The use of the adjective with ἄγαλμα indicates that ἄγαλμα does not always mean a marble statue, as Fraenkel believes (De verbis potioribus, p. 34).

Lines 5, 6. ἄλλαις γραπταῖς δ. The original text of ll. 4–6 probably was: καὶ ἄλλαις χαλκαῖς δ΄, καὶ ἄλλαις γραπταῖς δ΄, καὶ ἀγάλμασιν κτλ., but the items were misplaced through a stonecutter's mistake. In any case we must understand in l. 6: ἰκόσι γραπταῖς δ΄. A painted portrait of this kind was

sometimes placed on a gilt shield (in which case it was known as είκων γραπτή ένοπλος επίχρυσος, or είκων γραπτή εν όπλω ἐπιχρύσω, A. Baumeister, Denkm. I, p. 715; or εἰκων γραπτη έν ἀσπίδι ἐπιχρύσω, R. Et. Gr. VI, 1893, p. 169; or εἰκων γραπτή ἐπίχρυσος, Le Bas-Wadd. 1221; O. G. I. 571, n. 4), but ours are a plainer sort, probably painted on a wooden panel similar to the πίναξ εἰκονικός of Michel, Rec. 538. These plainer pictures are mentioned by Strabo (XIV, 648) and in countless honorific texts. As a rule they were half-length like the Fayum portraits, so that if a full-length was intended, the picture had to be called εἰκὼν γραπτή ὁλοσώματος, J.H.S. IX, 1888, p. 248, or εἰκὼν γραπτή τελεία (cf. Le Bas-Wadd. 1143 and C.I. G. 3085, where εἰκὼν γραπτὴ and εἰκὼν γραπτὴ τελεία are contrasted, also Le Bas-Wadd. 689; J.H.S. XXIII, 1903, pp. 89, 90; Mouseion V, 1884-1885, p. 50; and Boeckh's note on C.I.G. 3068). Hence the joke of Cicero about his brother's portrait ("frater meus dimidius"), when he saw an εἰκὼν γραπτή of Quintus "usque ad pectus ex more pictam" (Macrob. Sat. II, 3, 4). The fact that a painted εἰκών without further epithet meant a mere bust makes it all the more likely that busts, not full-length statues, were denoted by our $\epsilon i \kappa \dot{\omega} \nu \chi \rho \nu \sigma \hat{\eta} \kappa \delta \lambda \sigma \sigma \iota \kappa \dot{\eta}$, and by the ἄλλαις χαλκαῖς, etc. εἰκὼν γρα π τή is often used as here along with χαλκη εἰκών and ἄγαλμα μαρμάρινον. On these terms cf. B.C.H. XIV, 1890, p. 625; Le Bas-Wadd. 1595; Mouseion, 1884-1885, p. 50; O. G. I. 571, and references in note 4; R. Ét. Gr. VI, 1893, p. 160 A, l. 21; B, l. 7; Wiegand, Priene, p. 206; Wilhelm, Hermes, XLI, 1906, pp. 70, 71; C.I.G. II, 3085; I.G. II, 482, ll. 34, 68; Kalinka, T.A.M. p. 17, n. 5; B.C.H. XV, 1891, p. 546; K.P. I, 170, l. 17; Michel, Recueil, 545, 1. 22.

Line 6. ἄνδρα ἀγαθὸν καὶ φιλόπατριν. φιλόπατρις is sometimes an honorific municipal title (cf. Paton-Hicks, Ins. of Cos, note to No. 345: πρύτανις καὶ φιλόπατρις, Le Bas-Wadd. 134; φιλόπατρις καὶ ἀγωνοθέτης, ib. 1201) similar to φιλόκαισαρ and φιλοσέβαστος with which titles it is often associated (e.g. Ramsay, C.B. I, p. 155, 62; Le Bas-Wadd. 108, 496; B.C.H. XI, 1887, p. 153; I.G. III, 615). In the Sardian inscriptions, C.I.G. 3462 and Mouseion, I, 1873–1875, p. 113, it probably has this official meaning, as well as in an unpublished inscription

from Sardes copied by Hirschfeld and cited in K.P. I, p. 4: ήρωα στεφανηφόρον φιλόπατριν; but in the present case it appears to be used as an ordinary adjective (cf. ἄνδρα φιλόπατριν καὶ ἀγαθόν, J.H.S. XXII, 1902, p. 201).

Line 7. $\pi \rho \epsilon \sigma \beta \epsilon i \alpha s$. Cf. I. G. XII, 5, No. 712, $M \iota \theta \rho \hat{\eta} s$ $\pi \rho \epsilon \sigma - \beta \epsilon \upsilon \tau \hat{\eta} s$ $\Sigma [a\rho] \delta \iota a \upsilon \dot{o} s$. The great importance in municipal affairs of embassies in the first century B.C. is well illustrated by Ins. υ . Priene, 121, where a citizen serves as ambassador to eleven different cities (including Sardes) besides going on embassies to the king and to the Roman governor. Sardian ambassadors in that century appear to have been sent not alone, but in pairs (cf. O. G.I. 305, l. 2, to Delphi, and a long unpublished inscription from Sardes, dated in the time of Augustus), or in threes (O. G.I. 437, l. 24, to Ephesus). On the frequency and the costliness of embassies see Lévy, R. Ét. Gr. XII, 1899, pp. 274–275.

Line 8. κινδύνους. An expression characteristic of the stormy later days of the Roman Republic from which our inscription dates. Cf. κίνδυνον, in Ins. v. Priene, No. 111, 1. 9 (about 80 B.C.), of danger from the enmity of Roman publicani. Cf. also ἐν παντοδαποῖς κινδύνοις, B.C.H. IX, 1885, p. 75, an inscription dated in the second triumvirate by its editors and by Liermann (op. cit. p. 10). Possibly the circular of the propraetor of Asia (about 50 B.C.), published at Sardes and eight other cities, by which the scandalous conduct (ἀναίδεια, l. 42) of certain persons is reproved, may have been aimed at some such evil (Wiegand, Milet, II, 1908, pp. 101 f., No. 3). A striking instance of the dangers to which cities were at that time exposed is the sack of Mylasa by Labienus in 41 B.C. (cf. Strabo, XIV, 660; Dio Cassius, XLVIII, 26).

Line 8. ἀγῶνας. Our translation, "trials," attempts to render the ambiguity of this word. It perhaps refers to trials in the vague sense of "struggles" or "contests," but more probably to legal trials, before some court or Roman magistrate, in which Iollas took part as speaker for his city. For this latter meaning see ἀγῶνας ἐνίκησε (Ins. v. Priene, No. 124, l. 8, first century B.C.) of a controversy argued before the proconsul; and B.C.H. X, 1886, p. 149: πολλοὺς ὑπὲρ τῆς πατρίδος . . . ἀγῶνας εἰρηκότα (Attaleia). Strabo (XIII, 628) calls

Diodorus of Sardes ἀνὴρ πολλοὺς ἀγῶνας ἤγωνισμένος ὑπὲρ τῆς ᾿Ασίας. A man might well be advocate for his city in such trials without possessing the full powers of an ἔκδικος (see next note).

Line 8. evolkagías. This apparently new word is related to ἐκδικάζειν as ἐκδικία to ἐκδικεῖν. The latter verb was sometimes used for ἐκδικάζειν (Oxyr. Pap. VII, No. 1020, l. 6), and so here ἐγδικασία has the meaning of ἔκδικία, i.e. "attorneyship." The ἔκδικος might be appointed by an individual (Oxyr. Pap. II, No. 261, 55 A.D.; No. 237, vii, l. 39, 186 A.D.), but in inscriptions he usually appears as representing a city in some lawsuit. At this period and under the early Empire the municipal ἔκδικος was named only for a particular suit; hence when he had served, as had Iollas, in more than one suit, the plural is used, cf. C.I.G. 2719: π oddas $\pi \rho \epsilon \sigma \beta \epsilon \ell as$ kal ėkbiklas $\tau \hat{\eta}$ πατρίδι παρασχομένου; ib. 2771, II, l. 11: πρεσβείας καὶ ἐγδικίας τετελ[ε]κότα; Le Bas-Wadd. No. 1212: ἐγδικήσαντα δημοσίας ύποθέσεις πολλάς καὶ μεγάλας. The only exception at this date to the rule of special appointment for each suit seems to have been the ἔκδικος of the general council of the province of Asia (κοινον 'Ασίας), whose office was a regular annual one (0. G.I. No. 458, n. 40). The post held by Iollas has no relation to that of the municipal ἔκδικος of 459 A.D., mentioned in Le Bas-Wadd. 628, l. 8 (= C.I.G. 3467), as settling a strike at Sardes. That official (found also in Egypt, Oxyr. Pap. I, No. 129) held office continuously and, as this inscription shows, had wide powers (cf. Lévy, R. Ét. Gr. XII, 1899, p. 275, and the still better article by Brandis, Pauly-Wissowa, s.v. ἔκδικος). Cicero's mention of ecdici (ad Fam. XIII, 56, 1; Tyrrell, No. 231, B.C. 51), it may be inferred not only that they had full power to settle a controversy ("ut aliquid confici possit"), but that, like πρεσβευταί (see above), they were usually sent, not singly, but two or more together. This latter fact is now definitely known from Ins. v. Priene, No. 111 (about 80 B.C.), where an ἔκδικος of that city (l. 125, spelled also ἔγδικος, l. 26), is stated to have had συνέκδικοι (1. 129). One of these συνέκδιkoi, who on his legal business went to Sardes, is, perhaps, mentioned in Ins. v. Priene, No. 120, if we read ἔκδικος in 1. 14. Thus Iollas probably did not act alone in these legal duties.

Sardes, like so many other cities of Asia Minor, was in his day a borrower from Roman capitalists (Cic. Ad Fam. XIII, 55; Tyrrell, No. 232, B.C. 51: "cum Sardianis habere controversiam"; ib. 57; Tyrrell, No. 254, B.C. 50: "negotium quod habet cum populo Sardiano"). It is more than likely, therefore, that much of Iollas' work had to do with lawsuits over money borrowed by his city (cf. ἔκδικον in B.C.H. XXIV, 1900, p. 383, and ἐκδικήσαντα in Mouseion, V, 1884–1885, p. 46).

Line 9. ἀναδεξάμενον. Cf. B.C.H. XVIII, 1894, p. 100; Ath. Mitt. XXXV, 1910, p. 403, ll. 28, 33.

Line 9. κατορθώσαντα, the regular word for "successfully settling" (cf. συνκατ $[\dot{\omega}]$ ρθωσεν μετὰ τῶν συνεκδίκων, Ins. v. Priene, No. 111, l. 129).

Lines 9, 10. στρατηγήσαντα. Cf. Gerlach, op. cit. p. 63; Ins. von Pergamon, 455; Jos. Ant. XIV, 259–261. The στρατηγοί, the chief secular municipal officials of Sardes, were at this time a board of four members (cf. unpublished inscription). In imperial times one member became more important than the rest and was known as $\sigma \tau \rho a \tau \eta \gamma \delta s$; $\pi \rho \hat{\omega} \tau \sigma s$ (C.I.G. 3461). Iollas probably spent five years in this work, since the office was no doubt annual here, as it usually was elsewhere. As to its functions see Jos. Ant. XIV, 261 (where the Sardian strategi are instructed to assign building land at Sardes to the Jews); Lévy, R. Ét. Gr. XII, 1899, pp. 268 f.; Chapot, La prov. rom. proc. d'Asie, pp. 240 f.

Line 11. περιποήσαντ(a). For περιποιεῖν cf. J.H.S. XVII, 1897, p. 276, No. 27, l. 10: πολλὰ καὶ μεγάλα περιπο[ιήσαντα]. Iota is omitted after o (cf., however, ποιήσαντα, l. 14; ποιησάμενον, l. 21), showing that the form without iota was used in Roman times (cf. Nachmanson, op. cit. pp. 45, 46, "ποέω in Kleinasien ziemlich selten"; O.G.I. 234, 36; 448, 7; 742, 6; 764, 51; 765, 41, etc.), and the final alpha has been forgotten by the stonecutter.

Line 11. γυμνασιαρχήσαντα. Cf. Gerlach, op. cit. p. 64. For the main function of the gymnasiarch, that of supplying oil at his own cost to the gymnasium, cf. Ramsay, C.B. I, pp. 443 ff., and for the fullest account of his activities, P.W. VII, 1995–2001.

Line 12. ἐκ τοῦ ἰδίου βίου, a rare expression. For the more

usual $\ell\kappa$ $\tau\hat{\omega}\nu$ $\ell\delta\ell\omega\nu$, cf. Gerlach, op. cit. pp. 77–79; $\ell\kappa$ $\tau\hat{\omega}$ $\ell\delta\ell\omega\nu$ does not occur in the references cited by Gerlach, p. 80, ll. 8–9, but in C.I.G. 3450 (Lydia) we have $\ell\kappa$ $\tau[\hat{\eta}s\ \ell\delta\ell\alpha s]$ o $\ell\sigma\ell\alpha s$; in Le Bas-Wadd. 1340, and Ath. Mitt. I, 156; I.G. XIV, 256, etc., $\ell\kappa$ $\tau\hat{\omega}$ $\ell\delta\ell\omega\nu$.

Lines 12, 13. ἀγωνοθετήσαντα. Cf. Gerlach, op. cit. p. 64. The functions of γυμνασίαρχος and ἀγωνοθέτης were not reckoned among the municipal ἀρχαί, but were expensive liturgies from which exemption, when it could be obtained, was welcomed. Cf. Ins. v. Priene, No. 174, where such exemption is granted as an inducement to the purchase of a priestly office.

Line 13. Παναθήναια καὶ Εὐμένηα. O.G.I. 305 (= S.G.D.I.2643) records the reception at Delphi of the embassy - doubtless one of several sent from Sardes to the chief cities of Greece and Asia Minor - announcing the establishment of these games and requesting their recognition. They were to be quinquennial, their prizes wreaths, their rules the same as those of the Pythia at Delphi. In l. 9 of that inscription Π aναθάν αια κ[αὶ Εὐ] μέν [εια must now be restored, in lieu of 'Aθαν ala κτλ. From II. 11, 12 it may be inferred with certainty that these games, commemorating Sardes' narrow escape from the Gauls, through their defeat in 167 B.C. by Eumenes II, were founded shortly after that event, probably in the spring of 166 B.C. (cf. Dittenberger's notes 1 and 12, following Haussoullier, B. C.H. V, 1881, pp. 383-386, and Reinach, R. Ét. Gr. XXI, 1908, p. 197, n. 1. Stengel, Pauly-Wissowa, s.v. Εὐμένεια, wrongly dates the founding in 188 B.C.). In naming these festivals it was natural to couple Eumenes II with the patron goddess of his capital ('Aθηνα Νικηφόρος καὶ Πολιάς), because games in their honor, bearing these very same titles, had been for years in existence at Pergamum.1 The Eumeneia there had been founded in honor of Eumenes I (O.G.I. 267, n. 16, and Klio, I, 1901, p. 85, n. 5). Our text shows that the celebration of the Sardian festival was kept up for about a century, but its survival beyond B.C. 25, when the cult of Augustus was coming into vogue, seems highly improb-

¹ The Eumeneia and Nikephoria at Aegina were similarly named in honor of Eumenes II and the Pergamene goddess (O.G.I. 329, nn. 22 and 23). For the Panathenaea at Pergamum and Ilium cf. O.G.I. 267, n. 10.

able. As to the defeat of the Gauls by Eumenes II, when Sardes escaped its great danger and Eumenes received the title Soter, cf. Diod. XXXI, 12 f.; Polyb. XXIX, 22; XXX, 1, 3, and 19; Livy, XLV, 20; Niese, Gesch. der gr. und mak. Staaten, III, p. 201, n. 5. Eumenes died in 158 B.C., so that the Eumeneia must have been founded before that date (B.C.H. XX, 1896, p. 631). The Panathenaea mentioned in a much later Sardian inscription (K. P. I, 27, 1. 10) have no connection with our games.

Line 13. παρ έατοῦ. Cf. Ath. Mitt. XX, 1895, p. 244; XXXV, 1910, p. 403, ll. 29, 34; p. 404, l. 8; B. C. H. XI, 1887, p. 464, and references in Gerlach, op. cit. p. 78. For the omission of v cf. $\tau \dot{\alpha} \tau \dot{\sigma} = \tau \dot{\sigma}$ αὐτ $\dot{\sigma}$ in K.P. I, 55; II, 166, 173; Buresch, Aus Lydien, p. 39, l. 10; O. G. I. 405, l. 11, $\epsilon a \tau \delta \nu$; 458, l. 10, $\delta \tau \delta \iota \iota$; B.C.H. III, 1879, p. 153; IV, 1880, p. 543; V, 1881, p. 252; VII, 1883, p. 134, 13, $\epsilon a \tau \hat{\eta} s$ (= Jour. of Philology, XI, 148); Ath. Mitt. XIII, 1888, pp. 266, 267; XIX, 1894, p. 129; B.S.A. XII, 1905–1906, p. 178 ($\epsilon a \tau \hat{\omega} \nu$); Syll. 351; I.G. III, 552, 575, 576, 645, 888; Inscr. Brit. Mus. IV, 1, p. 62; Ins. von Perg. No. 536; and other references in Schweizer, Gram. der perg. Ins. p. 91, 1; Croenert, Memoria Herculanensis, 126; Mayser, Gram. der gr. Papyr. 114 f.; Wackernagel, Ztschr. f. vergl. Sprachw. XXXIII, pp. 4 f.; Meisterhans-Schwyzer, Gram. der att. Ins. pp. 61, 154 (from 74 B.C. onwards). This spelling occurs from about 125 B.C. onwards (Ath. Mitt. XXXV, 1910, p. 413), but is especially characteristic of the Augustan period to which our inscription is near in date, though it is found even in the second century A.D. (cf. K.P. II, 173). Our text belongs to a period of transition because ἐαυτόν occurs in the last line.

Line 14. ἰερέα τῆs 'Ρώμηs. For the cult of Rome in Asia Minor, at Miletus, cf. esp. Wiegand, Sieb. Bericht. pp. 16 f.; at Hierocaesareia, B. C.H. XI, 1887, p. 94; K.P. I, 113; II, 74; at Sardes, alone: Fraenkel, Ins. von Perg. 268 E 35 (98 B.C.) and Mouseion, III, 1879–1880, p. 182; with Augustus: O.G.I. 470, 13; at Ephesus, Ins. v. Perg. l.c. l. 34 (cf. also C.I.L. III,

¹ If it had survived, the name of Augustus would no doubt have been coupled with that of Eumenes, in some title such as $\Sigma \epsilon \beta \acute{a} \sigma \tau \eta a$ Εύμένηα. Cf. the Γορδιάνηα 'Αττάληα Καπιτώλια (Aprodisias), Head, Hist. Num.² p. lxxvii.

399, 5, Pergamum); at Priene an ἀρχιερεύς of Rome and Augustus (Ins. von Priene, 222); at Smyrna, Tac. Ann. IV, 56 (195 B.C.); at Alabanda, Livy, XLIII, 6 (170 B.C.); Hirschfeld, Sitzb. Berl. Ak. 1888, p. 835; C.I.G. 3524, 3567; Ramsay, C.B. I, Nos. 199, 302, pp. 377, 467; and other references in Chapot, op. cit. pp. 423 f. About 27 B.C. a temple to Rome and Augustus was built by the provincials at Pergamum (Dio. Cass. LI, 20; Tac. Ann. IV, 37; Klio, I, pp. 98 f.; XI, pp. 147 f.), and this worship having been officially introduced into the province, we are bound to assume that in so important a city as Sardes the cult of Rome alone ceased soon after 27 B.C.¹ That of Augustus must have spread rapidly, since by 3 B.C. it was practised in the chief towns even of Paphlagonia (O.G.I. No. 532, note 27).

Lines 14, 15. $\theta v(\sigma i)$ as. This must have been meant for the term used immediately below in l. 16. Though we have here assumed a stonecutter's error, it is possible that the spelling θvas is a case of syncopated abbreviation, like $\theta v\gamma\eta\rho$ for $\theta v\gamma\dot{a}\tau\eta\rho$, devpos for devieros, cf. Nachmanson, Eranos, X, 1910, fasc. 2–3, pp. 101 f. If our text were more ancient, one might suppose here the use of $\theta \dot{v}\eta$, as found in Homer, Od. XV, 261, Syll. No. 60, and in the Singers' Regulations from Miletus (their original dating from about 500 B.C., though the extant copy is of about 100 B.C. — Wilamowitz, Sitzb. Berl. Ak. 1904, p. 637). But in an inscription so modern as this, the use of an archaic word such as $\theta \dot{v}\eta$ is improbable, the more so since it is not repeated in l. 16.

Line 16. τὰ ἀπὸ τῶν θυσιῶν, consisting partly of miscellaneous eatables brought as offerings, partly of the meat of sacrificed animals. A more detailed description occurs in B.C.H. XXVIII, 1904, p. 22, ll. 8–10: τὰ ἀνενεγθέντα τῶ θεῶ δ[εῖ]πνα καὶ τὰ ἐκ τῶν θυσιῶν γεινόμενα.

¹ Since Augustus declined to accept worship except in connection with that of Rome (Suet. Aug. 52), cities introducing his cult were compelled to unite it with hers. In remote places, however, the cult of Rome alone did survive under Augustus (J.H.S. XVIII, 1898, p. 97, No. 37, Phrygia; in Le Bas-Wadd. 1208, Pisidia, it appears detached from that of Augustus), and coupled with the cult of Augustus, it survived until the reign of Tiberius (Ath. Mitt. XXXII, 1907, p. 321). In literature Rome is a goddess and eternal mistress of the world as early as Tibullus II, 5, ll. 24, 57 f.

² A possibility kindly suggested by Professor A. Wilhelm.

Line 16. διανίμαντα. Often simply νέμειν, as in Michel, Rec. No. 679.

Line 17. πολίταις καὶ ξένοις. Cf. C.I.G. 2782: ἐπιδόσεις πολλάκις... πεποιημένον... πολείταις τε καὶ ξ[έ]νοις. The ξένοι here mentioned are residents of the city not possessing citizenship (= κάτοικοι, πάροικοι) which, in O.G.I. 338, is granted to certain persons of this class.

Line 18. ἐν τῶ γυμνασίω. Cf. C.I.G. 2719: ἐν δὲ τῷ γυμνασίω πάντας τοὺς πολείτας μιᾳ ἡμέρᾳ δειπνε[ύσ]αντος. The gymnasium must have been one of the most important buildings in Sardes, for it was there that C. Sulpicius Gallus sat for ten days hearing complaints against Eumenes II (Polyb. XXXI, 10). At our date there was more than one gymnasium at Sardes,¹ as at Pergamum, and in the third century A.D. the gerousia still had its own gymnasium (cf. γυμνασίω γερουσι[ακῶ, Mouseion, II, 1876–1878, p. 25).

Line 18. ἄρξαντα ἀρχάs. Cf. Gerlach, op. cit. p. 61; also C.I.G. 3462 (Sardes). How many ἀρχαί there were at Sardes, besides that of strategus (see above), we cannot tell. The Demos must have had the usual recorder (γραμματεύs), and we know that there was an ἀγορανόμος (Le Bas-Wadd. 618), a λογιστής, and an ἐκλογιστής (unpublished inscription). Probably the νομικός of Le Bas-Wadd. 631 was also a municipal official. On the ἀρχαί in general see Chapot, op. cit. pp. 233–265; Lévy, R. Ét. Gr. XII, 1899, pp. 256 f.

Line 19. ἀναστραφέντα. Cf. for example Ins. von Pergamon, 470, ἐν πᾶσ]ιν ἀνεσ[τραμ]μένον ἀξίως; further comment will be found when another Sardian text containing this word is published. It is often used in inscriptions.

Lines 19, 20. ἀνδρήως καὶ καθαρήως. η for ει as in ἀριστήοις, l. 2, and Εὐμένηα, l. 13; ἀνδρήως also in Mouseion, I, 1873–1875, p. 101, No. 102. We see here from the adverb καθαρείως that the correct form of the adjective is καθάρειος, and of the noun, καθαρειότης. For the use of η for ει ef. above.

Line 21. ποιησάμενον ἐπιδόσεις. Cf. Gerlach, op. cit. pp. 66, 67; Le Bas-Wadd. 883 and Ath. Mitt. XXIV, 1899, p. 218, No. 45, l. 12.

 $^{^1}$ Cf. unpublished inscription. Iasos had four gymnasia (R. Ét. Gr. VI, 1893, pp. 163, 175), Miletus several (Wiegand, Sieb. Ber. p. 67).

Line 22. πάσης ἀρετῆς ἔνεκεν καὶ εὐεργεσίας. Such a summarizing phrase often occurs at the end of an inscription of this type, the virtues therein lauded having as a rule been shown to the party bestowing the honors, as ἐαυτὸν here refers to the δῆμος in line 1; cf. Gerlach, op. cit. pp. 58–60; cf. also C.I.G. 3459; K.P. I, Nos. 13; 107; 149, l. 3, and 170, l. 21, ἀρετῆς ἔνεκεν πάσης; K.P. II, No. 46, πάσης ἀρετῆς ἔνεκεν. On ἕνεκα and its forms cf. Nachmanson, Acta Suecana, 1909, p. 74.

3. Marble pedestal, with square flat face and projections at top and bottom, built into the acropolis wall, half-way down the

southeast face of the broad southeast bastion, the fourth stone from the west corner. Inaccessible. Apparently about 1.25 m. high by 1 m. wide. Read with field glass and telescope by Robinson and Buckler independently (cf. A.J.A. XIV, 1910, pp. 414 f.). Drawing by Buckler. Letters deep cut and well preserved without apices, A, E, H, Θ , Ξ , Γ , W; verses separated by points; apostrophe in 1. 9. Third cen-

OYTOCOTHCACIHC
YYAYXENAOMKON
YMAPXWN MYPFWCAC
KAOAPOICAOFMACIN
AXONIOC WIBOYAHME
FANWNAFAOWN XAPIN
EIKONABAIHN ETHCAMEN
EYNOMIHC MAPTYPA MI
CTOTATHN HA'OTIAAI
NEWNAAMEAWNKPH
MIAATOPHCAC TEY3EN
EAEYOEPIHCENNAE
TAICTEMENOC

FIGURE 2. — GREEK INSCRIPTION FROM SARDES.

tury A.D. Inv. B. 16. Published (1870) by Le Bas-Waddington (*Voyage arch.* V, No. 629) from faulty copy which omitted l. 8; thence by Kaibel, with notes (*Epigr. Graeca*, 1878, No. 903) and by Cougny, with Latin translation and notes (*Anthol. Pal.* éd. Didot, III, 1890, cap. I, No. 301).

οὖτος ὁ τῆς ᾿Ασίης | ὑψαύχενα θῶκον | ὑπάρχων πυργώσας | καθαροῖς δόγμασιν | ᾿Αχόλιος, $\overset{(5)}{\phi}$ βουλὴ με|γάλων ἀγαθῶν χάριν | εἰκόνα βαιήν στησαμέν | εὐνομίης μάρτυρα πι|στοτάτην, $\overset{(9)}{\eta}$ ὅτι λαϊ|νέων δαπέδων κρη|πίδα τορήσας τεῦξεν | ἐλευθερίης ἐνναέ|ταις τέμενος.

This is that Acholius who, as governor, by upright measures built ramparts for the lofty seat of Asia. To him for his great services the Council set up a small effigy, as a most faithful witness of the excellence of his rule, and because by laying foundations for courses of stone 1 he wrought for the inhabitants a precinct of freedom.

This inscription, formerly surmounted by the portrait-bust or statue of Acholius (1. 7) may be dated with probability in the third century A.D. not only by its script (\Box and \Box in O.G.I. 519, 250 A.D.; \Box in O.G.I. 531, 215 A.D.; also Buresch, Aus Lyd. pp. 90, 95, 253–268 A.D.; Wilhelm, Beiträge, p. 170, No. 147), but because the apostrophe (1. 9), though it does occur earlier and later, is specially characteristic of that century (Kaibel, op. cit. No. 667; Larfeld, Handbuch, I, p. 429, II, p. 564; Ath. Mitt. XVII, 1892, p. 21; Wilhelm, Beiträge, pp. 160, 161). Waddington's dating is thus confirmed, whereas Kaibel's (end of fourth century A.D.) is erroneous.

In view of the rarity of his name there is good reason for identifying this proconsul of Asia with the Acholius who held the important post of master of ceremonies (magister admissionum) to the emperor Valerian (253-260) and was the only known historian of that period (Prosop. Imp. Rom. I, p. 5; H. Peter, Geschichtliche Litteratur über die röm. Kaiserzeit, 1897, I, p. 437; II, p. 388). We can well believe that in a time of special danger the defence of this province was entrusted to such a personage, and that the crisis came either in 258 A.D. under Valerian or more probably in 263 A.D. under his son Gallienus. After sacking Trapezus in 257, the Goths in 258 threatened the province of Asia by devastating Bithynia and all but capturing Cyzicus (Rappaport, Einfälle der Goten, 1899, pp. 56-58). In the still darker year 263 they entered and pillaged the province (Asiam vastabant: Vit. Gall. 6, 2), sacked Ephesus the capital, and burnt the Artemisium (Rappaport, p. 64). At length they were driven from the country by defensive

¹ Or foundations composed of stone courses.

² It might appear an objection to our identification that the historical Acholius was himself a writer of history. But this need be no objection to our assumption that he became proconsul of Asia. Not to mention Tacitus there was a historian proconsul, Marius Maximus, in 215 A.D. (cf. O.G.I. No. 517, n. 8).

measures which the brief records do not describe in detail.1 The sack of Ephesus fixes in our opinion the approximate date of Acholius' proconsulship. For unless the headquarters of the provincial government had been moved from Ephesus to Sardes, this place could scarcely have been called the $\theta \hat{\omega} \kappa o_{S}$, i.e. "official seat," of Asia, and such a move is unlikely to have occurred except when a catastrophe was imminent or at leastthreatening. From the data of our text we may conjecture the facts to have been as follows: At some time between 258 and 263 Acholius, the governor, evacuated Ephesus and withdrew to Sardes, the citadel of which was by far the best stronghold available; it commanded the roads from Ephesus and Smyrna in the west, and that from Pergamum in the north, the only three main routes likely to be taken by Gothic hosts. acropolis of Sardes thus again, after several centuries, became for a time literally the "seat" of government. Finding its ramparts decayed, as they must have become during the long years of "Roman peace," Acholius ordered them to be rebuilt, and thus eventually preserved the city's freedom. The last verse of our epigram may imply that the citadel repelled an actual attack, or merely that its strength made the city perfectly secure. We need not assume that Acholius was still proconsul in 263, or when the new walls were completed; the text implies no more than that his foresight decreed their erection and that their foundations were laid by him. outline of events agrees with antecedent probability as well as with the hints conveyed in our epigram; and any such information, even though partly conjectural, may be welcomed, because of the deplorable meagreness of all other records.

In script and style this text resembles in a general way those in (1) B.C.H. XI, 1887, pp. 387-388 (Stratoniceia), eleven verses, in twenty-one lines, separated by points like ours; (2) B.C.H. XV, 1891, p. 430 (Stratoniceia), six verses, with diacritic sign in 1. 2; (3) B.C.H. VIII, 1884, pp. 379-380 = Cougny, op. cit. III, p. 590, No. 347 b. add. (Tripolis in Lydia), four verses, in fifteen lines, beneath the portrait-effigy

¹ Vit. Gall. 7, 3 (Peter Scriptores Hist. Aug. II, p. 86), per eadem tempora etiam Scythae in Asia Romanorum ducum virtute ac ductu vastati ad propria recesserunt.

of Hermolaus of Tripolis, a Roman senator; (4) Mouseion, I, 1873–1875, p. 114 = Kaibel, op. cit. add. 903 a. = Cougny, op. cit. III, cap. I, 322 (Hypaepa in Lydia), six verses, in twenty-three lines, beneath the portrait-effigy of Isidorus, a proconsul of Asia (script not stated).

Line 1. οὖτος, etc., a favorite beginning for verses inscribed on the base of a portrait-statue as well as on grave-stones. Cf. οὖτός τοι . . . on base of Marcellus' statue (Plut. Marc. 30); οὖτος ὁ . . . on that of an athlete at Olympia (Cougny, op. cit. cap. I, 169); τοὖτον ὃν . . . C.I.G. 2967; 'Ανθεμίου παῖς οὖτος . . . Mouseion, l.c.; ef. index in Anth. Pal. s.v. οὖτος.

Line 2. ὑψαύχενα θῶκον. At this date ὑψαύχην seems to have meant literally "lofty," whereas in the sense of "haughty" it does not appear till much later, in the works of Christian writers and of sixth century poets (i.e. Ἑσπερίην ὑψαύχενα, Anth. Pal. IX, 641, and see citations in the Thesaurus). This being so, $\theta \hat{\omega} \kappa o s$ cannot here mean $\sigma \hat{\nu} \lambda \lambda o \gamma o s$ or $\sigma \nu \nu \epsilon \delta \rho \iota o \nu$ (cf. Thesaurus, s.v. θâκος, and Herod. VI, 63: ἐν θώκω κατημένω), but must denote some spot or place. Obviously this is the Sardian acropolis, — to which all annotators take the words as referring, — and hence we are compelled to assume that the proconsul about this time had his headquarters there, an inference upon which the above outline of events is based. The city itself as the seat of a conventus juridicus (Plin. N. H. V, 111), had long been one of the centres of provincial administration. But that fact would not have justified even a poet in describing it as the "seat of Asia," i.e. of the province, still less in applying that phrase to its acropolis, which towered above the city as a purely military stronghold with no relation to the law courts. The above inference seems unavoidable, if we would give a satisfactory sense to these verses.

Line 3. $\hat{\boldsymbol{v}}\boldsymbol{\pi}\hat{\boldsymbol{a}}\boldsymbol{\rho}\boldsymbol{\chi}\boldsymbol{\omega}\boldsymbol{v}$. Waddington, l.c., reads $\hat{\boldsymbol{v}}\boldsymbol{\pi}\boldsymbol{a}\boldsymbol{\rho}\boldsymbol{\chi}\hat{\boldsymbol{\omega}}\boldsymbol{v}$. Cougny's translation regards $\tau\hat{\eta}s$ 'A $\sigma i\eta s$ as depending on this, but the order of the words suggests that it stands independently. Cf. Diod. XXXVI, 19; also $\tilde{\boldsymbol{v}}\boldsymbol{\pi}\boldsymbol{a}\boldsymbol{\tau}os$ $\hat{\boldsymbol{v}}\boldsymbol{\pi}\boldsymbol{d}\boldsymbol{\rho}\boldsymbol{\chi}\boldsymbol{\omega}\boldsymbol{v}$, C.I.L. V, 8120, and $\hat{\boldsymbol{v}}\boldsymbol{\pi}\boldsymbol{d}\boldsymbol{\rho}\boldsymbol{\chi}o\boldsymbol{v}$ in the Hypaepa epigrams, Mouseion, l.c.

Line 3. $\pi\nu\rho\gamma\omega\sigma$ as . . . We take this verb literally, and not in the sense of "protecting" (by wise measures), because it usually denotes the building of real ramparts, a meaning

which II. 9–10 render here the most appropriate. Cf. Theognis, 773 (Bergk): Φο $\hat{i}\beta\epsilon$ ἄναξ, αὐτὸς μὲν ἐπύργωσας πόλιν ἄκρην, and especially the fourth-century epigram on a statue of the governor who fortified Megara (Rh. Mus. XIV, 1859, p. 502 = Cougny, op. cit. cap. I, 334):

οὖνεκα πυργώσας πόλιας κρατεραλγέα θοῦρον τεῦξεν ἀτάρβητον δήϊον ἐνναέταις.

Line 4. δόγμασιν . . . Waddington's edition was from a poor copy by Le Bas, reading δούμασιν, out of which he made δώμασιν, the other editors, $[\lambda]$ ούμασιν.

Line 7. $\beta \alpha i \dot{\eta} \nu$. Previous editors: $\chi a \lambda \kappa \hat{\eta} \nu$. The point lies in the antithesis to $\mu \epsilon \gamma \dot{a} \lambda \omega \nu$.

Line 7. στησαμέν . . . This verb, like ἀνατιθέναι, implies erection at public expense, a form of honor comparatively rare (see above, p. 32).

Line 8. εὐνομίης. Instead of its usual passive sense "good order," this word here has the active one of "good government," as in the epigram on the statue of a Smyrna magistrate presented by Philadelphia (Anth. Pal. II, XVI, app. Plan.: IV, 34): φράζεο πῶς μνήμων ἡ πόλις εὐνομίης. Like 'ελευθερία (see below) εὐνομία was sometimes the object of a cult (R. Ét. Gr. XXV, 1912, pp. 42 f.).

Lines 8–9. πιστοτάτην. In previous editions misread θ] $\epsilon\iota \sigma \tau \dot{\alpha}\tau \eta \nu$; the whole of l. 8, missing from the copy of Le Bas edited by Waddington, was therefore wrongly restored, $\sigma \tau \eta \sigma a \mu \dot{\epsilon} \nu [\eta \tau \epsilon \iota \mu \dot{\eta} \nu \ \ddot{\omega} \pi a \sigma \epsilon \ \theta] \epsilon \iota \sigma \dot{\tau} \dot{\alpha} \tau \eta \nu$.

Lines 9–10. λαϊνέων δαπέδων κρηπίδα . . . Rightly regarded by Waddington as referring to fortifications built against Gothic invasions of the third century, whereas Kaibel and Cougny, followed by Reinach (R. Ét. Gr. XIX, 1906, p. 128) understand from ll. 8–12 that Acholius built a precinct sacred to the goddess Έλευθερίη. Quite apart from $\pi \nu \rho \gamma \dot{\omega} \sigma a s$ in l. 2, this latter view appears untenable. The stress laid on $\kappa \rho \eta - \pi i \delta a$, etc., suggests some great public work, not the mere building of a temple enclosure; and the well-known dearth of stone and marble within a radius of two miles from Sardes (where even stately buildings were therefore built of brick; Plin. N.H. XXXV, 172) rendered $\lambda a t \nu \epsilon a$ δάπεδα far too expensive

to be suitable for the walls of any precinct other than the citadel. In Theorr. XXIII, 58 we have $\lambda a \iota \nu \epsilon \eta s$. . . $\dot{a}\pi \dot{b}$ $\kappa \rho \eta \pi \hat{\iota} \delta o s$.

Line 11. τορήσας. Cougny: πορίσας.

Lines 12-13. ἐλευθερίης . . . τέμενος. Cf. note on ll. 9-10, λαϊνέων, etc. Waddington's reading and interpretation seem correct. ἐλευθερία is a usual poetic theme (cf. epigram in Paus. VIII, 52, 6, on Philopoemen as κράντορ' έλευθερίας, and Pindar, fr. 77 Schr., on an Athenian victory as φαεννάν κρηπίδα ἐλευθερίας. This last citation is from Cougny, who doubts Kaibel's reading Έλευθερίης); and τέμενος can be used in a figurative sense (cp. Anth. Pal. App. No. 63, where τέμεvos refers to the soul of Aristophanes, and C.I.G. 6088: Mapa- $\theta \dot{\omega} \nu$, $\sigma \dot{\eta} s$ $\dot{\alpha} \rho \epsilon \tau \dot{\eta} s$ $\tau \dot{\epsilon} \mu \epsilon \nu o s$, of Miltiades). The cult of the goddess 'Eλευθερία practised at Cyaneae (C.I.G. 4303, h. add. = Le Bas-Wadd. 1286) and Aphrodisias (R. Ét. Gr. XIX, 1906, p. 128) is nowhere shown to have existed in Lydia. To infer its existence from this passage is to spoil the point of an elegant epigram, whereas if τέμενος refers to the citadel, it neatly sums up the statements of ll. 2-4 and 9-11.

Line 13. ϵ vva ϵ tais. Cf. ϵ vva ϵ tai $\pi \delta \lambda$ ios, B.C.H. VIII, 1884, p. 380, l. 12. This word is essential to the meaning, if $\tau \epsilon \mu \epsilon \nu$ os refers to the citadel, but has no particular point if a sacred precinct is in question.

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ATTIC BUILDING ACCOUNTS 1

[PLATES II-IV]

I. THE PARTHENON

THE Parthenon was begun during the political contest between Pericles and Thucydides, the son of Melesias (Plutarch, Pericles, 12). The decree which authorized the construction, dating probably from soon after 450 B.C., has never been discovered, but numerous fragments, seventeen of which may now be accepted as correctly identified, have been from time to time attributed to the stele containing the actual expense accounts. It was Köhler who discovered the first clue; to a series of seven fragments assembled by Kirchhoff (Monatsb. Berl. Akad. 1861, p. 860; I. G. I, 300-311), referring to a construction which was carried on through a period of at least fourteen years, beginning with 447/6,2 Köhler (Ath. Mitt. 1879, pp. 33-35) united four others (one of them mistakenly), of which two mention marble for pediment sculptures. Köhler's identification is now almost universally accepted.⁴ To his ten authentic fragments additions have been made by

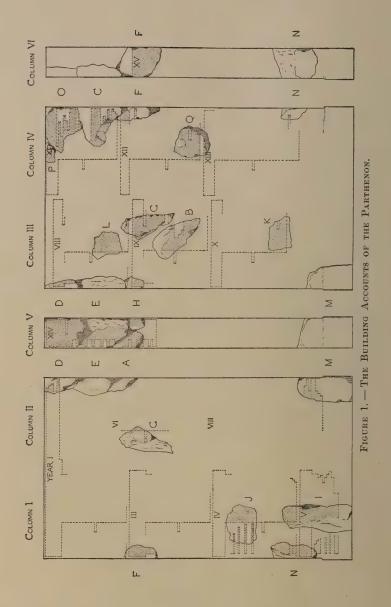
Foucart — three new pieces — including I.G. I, 300-302 a,

¹ I am greatly indebted to Dr. B. Leonardos, formerly curator of the Epigraphical Museum at Athens, for the opportunity to study these accounts on the original stones, and to Dr. A. D. Keramopoullos, the present curator, for permission to publish the already known pieces and to add some new fragments of the accounts of the Propylaea.

² The date of these fragments had previously given no hint, because it was then supposed that the Parthenon was begun before 454/3, and to it were assigned the fragments *I.G.* I, 284–288 (Kirchhoff, *Mem. d. Ist.* 1865, pp. 129–142; Michaelis, *Parthenon*, pp. 287–288).

 3 I.G. I, 111; 297 a and b, suppl. p. 37; 311 a, suppl. p. 74. The first of these, I, 111, does not belong with the others; the letters are too widely spaced.

⁴ Bannier alone in recent times speaks of this inscription as unidentified (Rh. Mus. 1906, p. 220).



suppl. p. 147, and two pieces wrongly assigned, *I. G.* I, 312–313, 331 (*B. C.H.* 1889, 174–178), making thirteen in all. His results were followed by Michaelis (*Arx Athenarum*, *A.E.* 10).

Bannier — four new pieces — adding *I.G.* I, 220–221 (*Rh. Mus.* 1906, p. 223) and *I.G.* I, 327 (*Ath. Mitt.* 1902, p. 304), and two pieces wrongly assigned, *I.G.* I, 330, and *I.G.* II, 4323, suppl. p. 293 (*Rh. Mus.* 1906, 221; 1908, 429, 434).²

Cavaignac — two new pieces — adding Fig. 20 and Fig. 26 above, of his Études sur l'histoire financière d'Athènes au V° siècle (pp. l, lvi, lx, lxii, and pl. II.), to Foucart's eleven authentic pieces, and one of Bannier's (I. G. I, 327), rightly discarding Foucart's I. G. I, 312–313 (l.c. p. lxv) and 331, but unfortunately omitting Bannier's I. G. I, 220–221; his total was fourteen pieces.

Woodward — two new pieces (B.S.A. 1909-10, pp. 187-198). For convenience I number the seventeen authentic pieces (Cavaignac's fourteen, Bannier's I.G. I, 220-221, and Woodward's two new pieces) as follows: A = I.G. I, 220-221; B =297 a; C = 297 b; D + E = 300-302; F = 300-302 a; G = 303-305; H = 306-307; I = 308-309; J = 310; K = 311; $L = 311 \alpha$; M = 327; N = Cavaignae, Fig. 20; O = Cavaignae, Fig. 26 above; P = B.S.A. 1909–10, p. 187; Q = B.S.A. 1909–10, p. 190. All of these seventeen fragments are now in the Epigraphical Museum at Athens, even including I.G. I, 327 (M), which Bannier supposed to be missing (Ath. Mitt. 1902, p. 304). Of the five fragments wrongly assigned to the stele, two, I.G. I, 111 and 312-313, are in the Museum, while three, I.G. I, 330, 331, and II, 4323, are missing; two, I.G. I, 312-313 and 331, belong to the Propylaea, while the others remain unknown.

Five fragments of the Parthenon stele had been dated — J in 444/3 B.c. and I in 444/3-443/2 B.c., on account of the

 $^{^1\,\}mathrm{Both}\ I.G.\,\mathrm{I,\,312\text{--}313}$ and 331 belong to the accounts of the Propylaea, as we shall see (Part III).

² Neither I, 330 nor II, 4323 is now in the Epigraphical Museum at Athens; actual comparison is therefore impossible. But I, 330 would require drastic emendation, and could not in any case be combined with *I.G.* I, 309, as Bannier proposed, this position being occupied by Cavaignac's new fragment N. II, 4323, as represented in the *Corpus*, seems to preserve the width of the narrow edge as 0.12 m., while in the Parthenon stele it was 0.198 m.

names of the secretaries for the Hellenotamiae, and D + E 2 in 434/3 B.C. and F in 433/2 B.C., on account of the names of the archons—and formed an unquestionable sequence, before Michaelis in 1901 attempted the first publication of the series as a whole (A.E. 10). His result was hardly successful; he included I.G. I, 312-313 and 331, which really belong to the Propylaea, and refused Christ's dating of fragment I. Bannier suggested several combinations, as of B, C, and G (only B and G really go together) and placing A in the fourteenth or fifteenth year (actually the former). The first comprehensive reconstruction of the series was attempted by Cavaignac in 1908 (l.c. pp. l-lxix, pl. II), on the basis of a study of the types of lettering as shown by squeezes; he decided that the stele was about 20 × 60 cm. in section and of great height, inscribed on the front (six years), the back (six years), and the left edge (three years). He failed, however, because of having used squeezes rather than the original stones; in three cases (D, I, and O) fragments preserving the top or bottom of the stele are placed in the middle, and the marked differences of weathering on the back and front are completely disregarded; it happens, therefore, that he mistakes the reverse for the obverse of the stele, that he misdates (in some cases by as many as nine years) one or more faces of nine of the fourteen fragments that he employs, that he restores only one column instead of two on each broad face of the stele, and that he does not recognize that the fourth face of the stele was also inscribed. Cavaignac's publication brought out two new combinations, the joining of C to O, and the association of I with N. The discovery of other combinations, coupled with the recognition of Cavaignac's errors, caused me to undertake, on the basis of the fifteen fragments known before 1910, a new restoration which was already complete when Mr. Woodward discovered the two new fragments which gave rise to his publication (B S.A. 1909-10, pp. 187-198); his own views as to the correction of Cavaignac's arrangement he was so kind as to withdraw in favor of my restoration, of which he publishes a description (l.c. pp. 188-190) and a diagram (l.c. p. 198).

J. Christ, De publicis pop. Ath. rationibus, p. 34; cf. I.G. I; 236, 237.

² Joined by Kirchhoff in 1861, l.c.

Of the seventeen authentic fragments, four (D, F, G, and N) are opisthographic, and exhibit in common one face badly weathered, with granulation of the marble near the letters and with vertical grooves caused by the beating of heavy rains, while the opposite face has the surface beautifully preserved, but with the letters sometimes corroded where drops of rain in comparative quiet trickled down and lodged in them. We shall find reason for identifying the well-preserved face as the obverse, the other as the reverse of the stele. Of the thirteen fragments that are not opisthographic, five (A, E, I, J, and M) are from the better preserved face or obverse, and eight (B, C, H, K, L, O, P, and Q) from the weatherbeaten reverse.

On three of the fragments, D and $O + P^1$, the original top surface, roughly dressed with the hammer and point, is preserved. D has the entire thickness of the stone, 0.198 m., so that the other two cannot be from the opposite face at the same corner; these three pieces either were from two separate stelae or formed the two upper corners of a single stele; the latter is certain, as appears from the uniformity of the marble grain and of the corrosion of the surfaces. The words and letters on these two upper corners of the badly weathered face cannot possibly be combined in one column of inscription, so that we must certainly restore two columns.2 Furthermore, to these three fragments from the upper corners may be joined five others which preserve parts of one of the narrow edges and of one or both of the broad faces. To D Kirchhoff had joined E. to which in turn I fitted accurately the fractures of A and H. To O + P (joined by Woodward) Cavaignae had fitted C, and to this again I fitted F which had formerly been placed just below D + E.3 We now have two groups, each of four fragments, from the upper right and left corners of the stele, and preserving the upper portions of six columns, two on each

¹ The junction between these was made by Woodward.

² This conclusion may be found repeated in Mr. Woodward's article (p. 189).

 $^{^{8}}$ The arrangement of F below D + E was the primary cause of Cavaignac's errors; it brought writing characteristic of the obverse below that of the reverse, wherefore Cavaignac assumed that the upper half of what is properly the reverse, being different in character from the lower half of the reverse which was continued (!) into the upper half of the obverse, must have been inscribed earlier and was therefore the obverse.

broad face and one on each narrow edge. The narrow edges contain the fourteenth and fifteenth years respectively, as appears from the archons' names, so that the accounts of thirteen years must be distributed between the four other columns. O + P give the name of the first secretary of the senate for the year concerned as Πειθιάδες, who appears also in the Propylaea account of 437/6 B.C. (I.G. I, 314); this must, therefore, be the eleventh year of the Parthenon series which began in 447/6 B.C. Since O + P form the head of the right-hand column of the weatherbeaten face, this column is obviously the fourth of the series of six, and the weatherbeaten face is the reverse of the stele; for after only two more years both broad faces had been filled and the accounts could be continued only on the narrow edges. Column IV must have contained the eleventh, twelfth, and thirteenth years; column III, also on the reverse, began likewise with a new year (fragment D; cf. the discussion of the eighth year below), and must have contained the eighth, ninth, and tenth years. On the obverse appeared, therefore, the accounts of the first seven years. Fragments I and M, both of the obverse, preserve the bottom of the stele: the latter has also a narrow edge of the stele at the right. and so forms the end of column II and of the seventh year's account; this conclusion is verified by the contents of M, expenses and the surplus which concludes each annual account. Fragment I cannot be combined with M and so forms the end of column I; it ends in the middle of a year's account, the fifth year as appears from Christ's identification of the secretary for the Hellenotamiae. Column II therefore contained only half of the record of the fifth year and all of the sixth and seventh years; the seemingly disproportionate length of column I will be accounted for when we observe that the second year was apparently omitted.

Each annual account began with a prescript, followed by two series of entries, receipts $(\lambda \epsilon \mu \mu a \tau a)$ and expenses $(a \nu a \lambda \delta \epsilon \mu a \tau a)$. The first receipt was always that of the surplus from the epistatae of the previous year; the last expense was the surrender of the new surplus to the epistatae of the next year; besides the surplus in silver drachmae each always included

¹ Woodward, B.S.A. 1909–10, p. 188.

971 gold staters of Lampsacus and Cyzicus which were never spent. The heading for the expenses was simply the word άναλόματα, occupying a line by itself. The heading for the receipts was a phrase, (τούτοις) λέμματα το ένιαυτο (τούτο) τάδε, incorporated with the end of the annual prescript; the τούτοις and τούτο were sometimes omitted because of lack of space, as in the third year and in the eleventh to fifteenth years inclusive (as read below). Each annual prescript (except the first) occupied the entire width of a column; below the prescript the column was divided, forming a double column for each annual account, the left half recording only sums of money, the right half the items. 1 Each entry begins with a fresh line (unlike the Erechtheum accounts), regardless of where the previous entry terminated, so that the columns have no proper right edges. The letters, however, almost always observe the stoichedon arrangement, spreading only when the amount of available space is excessive. The type employed in the reproduction of these inscriptions resembles closely that on the original stones, except that the E should have the three bars equal in length, and in M all four strokes should slope.

¹ The same arrangement is characteristic also of the Propylaea stele. In one earlier account (*I.G.* I, 286), the money column is at the right of the item column; in another (*I.G.* I, 289–296), the sums are mingled with the items as in the later accounts of the Erechtheum.

analogy of the last years of the Parthenon accounts (used by Kirchhoff for I.G. I, 309, and by Cavaignac for his first eight years of the Parthenon). The solution is given by fragments G and I; in G we read $\text{EAP}[a\mu\mu\acute{a}\tau\epsilon\upsilon\epsilon]$ and $[\pi\rho\acute{o}]\text{TO}\leq\text{EAPA}$ - $[\mu\mu\dot{\alpha}\tau\epsilon\nu\epsilon]$ in the first two lines, the latter referring to the first secretary of the senate and requiring the word Bolé, so that Kirchhoff correctly used $\dot{a}\rho\chi\dot{\epsilon}$ with the other secretary; in [we read in the corresponding positions $\cdot \cdot \cdot \epsilon \in \mathbb{R}$ HEI and $\Gamma POTO \lesssim 1$ again requiring $\partial \rho \chi \dot{\epsilon}$ (formulae 1, 2, or 3) and $\beta o \lambda \dot{\epsilon}$ respectively. The second phrase of the prescript might then be restored, on the analogy of the Propylaea accounts, $\epsilon \pi i \tau \hat{\epsilon} \hat{s}$ βολêς $h\hat{\epsilon}\iota$ — $\pi\rho\hat{o}\tau$ ος $\epsilon\gamma\rho\alpha\mu\mu\dot{\alpha}\tau\epsilon\nu\epsilon$, were it not for the fact that in the only two places at which the results can be tested, fragments G and I, the words $\epsilon \pi i \tau \hat{\epsilon} s \beta \delta \hat{\epsilon} s \hbar \hat{\epsilon} \iota$ would occupy so much space as to leave none for the name of the first secretary of the senate,3 which would be absurd; I therefore use the shorter form $\tau \hat{\epsilon} \iota \beta \delta \hat{\epsilon} \iota$ on the analogy of I. G. II, 867. Then the numeral must have appeared in the first phrase, which would have been like formula (2) or (3); only (2) is of the right length to fit the allowable projection of the prescript to the left of the item column in fragments I + N, of the fifth year,4 and this may be retained as the invariable first phrase

¹ Kirchhoff read here, by an impossible contraction of the lines, [ˈEπl τês —— $\beta o\lambda \hat{\epsilon}$] \leq HEI TIMO \odot [εος ——] \leq \Box POTO[ς έγραμμάτενε], whereupon Penndorf (De scribis, p. 132) restored TIMO \odot [εος 'Αναφλύστιο] \leq , identifying him with the father of Conon, and this was retained by Ferguson (The Athenian Secretaries, p. 14) with the date ca. 435/4 derived from Michaelis. Cavaignae rightly expanded the lines, but rid himself of the secretary in the second line by reading \Box POTO[γένες]; yet a trace of the \leq of $\pi \rho \hat{o} \tau os$ is actually preserved.

² This phrase in I.G. I, 314–315 is usually restored $\kappa al\ \epsilon \pi l\ \tau \hat{\epsilon}s$ $\beta o\lambda \hat{\epsilon}s$ $\kappa.\tau.\lambda.$; but there is no space for the κal .

 $^{^{3}}$ That is, if the lines are restored by means of the combinations $\mathsf{G}+\mathsf{H}$ and $\mathsf{I}+\mathsf{N},$ as discussed below.

of the first ten annual prescripts. The rest of each prescript gave a list of the epistatae (omitted in the last five years) closing, instead of opening as in the Propylaea accounts, with the word ἐπιστάται. Finally came a phrase evidently beginning with HOI \leq (fragment I) and ending with $\lceil \epsilon \gamma \rho \rceil$ AMMATEY[$\epsilon \rceil$ (fragment G), as if the person named were secretary to the epistatae, already named in the first line; for this reason Kirchhoff and Cavaignac restored the same name in the first and fifth lines of the prescript on G; but in the fifth year the two names in these positions were certainly different, TIMOOI[05] and Al.... Analogous are the tribute lists of 443/2 and 442/1 B.C. (I.G. I, 237, 238), when two secretaries were attached to each board of Hellenotamiae; the first έγραμμάτευε, the second χσυνεγραμμάτευε, and the second we note was permanent, at least for two years; the Erechtheum board of 408/7 had also a hυπογραμματεύς, Pyrgion of Otryne (I.G. I, 324, a, c). Traces of the name of this third secretary in the Parthenon accounts are preserved only in the fifth year, AN · · · , which Kirchhoff restored AN[τικλές], causing Michaelis to date the fragment wrongly as ca. 435/4 B.C.4 In the eleventh year, however, fragment P gives the name of the secretary for the epistatae as ANI, tempting Woodward (l.c. p. 188) to restore 'ANT[$\iota\kappa\lambda\hat{\epsilon}_{S}$ 'O $\hat{\epsilon}\theta\epsilon\nu$?] EAPAMMATE[$\iota\epsilon$]; but to place the demotic before the verb is unusual, the spacing of ANI seems to indicate that there were twelve letters instead of thirteen before the ἐγραμμάτευε, and the last of these appears to have a vertical hasta (cf. Cavaignac, Fig. 26); I restore therefore 'ANT[$\iota\kappa\lambda\hat{\epsilon}_{S}$ $\chi\sigma\upsilon$] NEAPAMMATE[$\upsilon\epsilon$]. This longer verb fills also the required space on G. There is no space for the χσυν- on the reverse of F which may be identified as a fragment of the twelfth year (see below), and in the thirteenth year (Q as identified below), where the end of the name is preserved,5 the your is certainly omitted. It would appear, therefore,

¹ The unique last lines on the obverse of F, KAIHO \cdots and POI \leq I \cdots , will be discussed later (third year).

² It was to avoid the mention of three different secretaries in the fifth year that these first two lines have always been wrongly restored.

³ Rejected by Cavaignac.

⁴ Accepted by Ferguson.

⁵ Woodward reads · · ·] $O \le E \land P[\alpha \mu] MATE[ve]$ (*l.c.* p. 193), but it is a vertical hasta, as for . .] $E \le$, that appears on the stone.

that Anticles attained the full secretaryship in the twelfth year. The annual prescripts may now be restored without difficulty; the formulae are given below in tabular form:

FIRST TEN YEARS	LAST FIVE YEARS
$E\pi \wr \tau \hat{\epsilon} s \cdot \cdot \cdot \cdot \epsilon s \ d\rho \chi \hat{\epsilon} s$	(Τοῖs) <i>ἐπιστάτεσι</i>
hει · · · · · εγραμμάτευε · · · · · ·	hoîs 'Αντικλês (χσυν)εγραμμάτευε
τει βολει	έπι τες (· · · ες και) δεκάτες βολες
· · · · · · προτος ἐγραμμάτευε	hει · · · · · προτος έγραμμάτευε
	$\epsilon\pi l\cdots \epsilon\rho\chi$ οντος $A\theta\epsilon$ να $loi\sigma(i\nu)$
(list of ca. 5 epistatae)	
$\epsilon \pi \iota \sigma \tau \acute{a} \tau a \iota$	
hoîs ('Αντικλές) χσυνεγραμμάτευε (·····)	
τούτοις λέμματα το ένιαυτο (τούτο) τάδε	λέμματα το ἐνιαυτο (τούτο) τάδε

It is interesting to note that the change of the formulae coincides with the dedication of the chryselephantine statue and with the beginning of the Propylaea, and so perhaps marks an entire change in the administration of the Parthenon.

The only fragment of the top of the obverse of the stele is D (I.G. I, 300), which appears in the seventh year of Cavaignac's scheme; here the first five lines contain larger letters than the rest, seemingly part of the first annual prescript, though the preserved letters are at the top of column II; this indicates that, as in the Chandler Inscription of the Erechtheum (I.G. I, 322) and, as we have good reason to believe, in the stele of the Propylaea, the first annual prescript extended across the entire width of the two double columns. The preserved letters are spaced 0.02 m. on centres; if the total width of the stele be taken as about 1.20 m., on the analogy of that of the Propylaea (cf. p. xxx), we should have space for no more than fifty-eight letters in the longest line (l. 5); the first six lines may then be restored by following the analogy of the first prescript for the Propylaea, observing the stoichedon arrangement.

- L. $1 [\Pi a \rho \theta \epsilon \nu o \nu] O \le$ is offered merely as a suggestion, the official name of the temple at this period being uncertain.
- L. $3 [A\nu\tau] | K L E \le$, Böckh (Staatsh. II, p. 305); this is rather the name of the first epistates; there is here space for five epistatee, the usual number in the Parthenon, as in the accounts I.G. I, 289–296.

It is interesting to note that in this inscription of the summer of 446 B.C. the *N* and ≤ appear regularly, perhaps for the first

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time in regular use¹; in the spring of the same year \aleph and \lessgtr had been used in the tribute list (I.G. I, 233).

The next prescript, on F (I. G. I, 302 a), was in ll. 34-40 of column I, separated by a gap of twenty-eight lines from the first annual prescript, as may be calculated by its distance below the top of the stele.² This prescript I assign to the third year for the following reasons. We noted that in column I were accounts reaching to the middle of the fifth year. That of the first year occupies exactly as much space (averaging thirty-three lines) as the accounts in columns III and IV, though these contain only three years each; the fragments of the fourth and fifth years seem to be no less voluminous; one of the first years was evidently therefore omitted, unless we are to accept the improbable solution that two annual accounts were very much abbreviated. In l. 40 we read POI≤I, hitherto uninterpreted, but which may be restored as [τοις προτέ] POI ξΙ[ν ἐπιστάτεσι], as if the under-secretary wrote the following accounts both for the epistatae of the current year (KAIHO[îs]), and for those of the year before, i.e. for the second and third years. The probability that the omitted year was the second rather than the third is increased by the fact that in the second year came the revolt and campaign in Euboea, which Cavaignac too (l.c. pp. 76, 82, 87) supposes to have had some effect on the work. Michaelis had assigned this fragment to a supposed sixteenth annual account (432/1 B.C.), when the work had, however, ceased; Cavaignac, supposing it to be the third rather than the second prescript, accidentally obtained what I believe to be the correct date, the third year.

L. 33— [τρίτες βολές], Cavaignae.

L. 38 — $[\Sigma \phi \epsilon \tau]$ TIO \leq , Cavaignae.

L. 40—τούτο, omitted for lack of space.

Fragments J (*I.G.* I, 310) and N (Cavaignae, Fig. 20) + I (*I.G.* I, 308), dated by the names of the secretaries for the

¹ They had appeared previously in the tribute list of 449/8 (*I.G.* I, 231), and ≤ in the prescript of 453/2 B.c. (I, 227); cf. Roberts, *Greek Epigraphy*, I, p. 102.

² It will be remembered that F was fitted to C, the latter being a piece of the top of the stele.

Hellenotamiae, give almost the complete account of the fourth year, without the prescript. The numbering of the lines is based merely on the average of thirty-three lines for each year.

L. 75—[♣♠¶€≤H]EKTE, restored from comparison with other years, locates the left edge of the money column.

L. 77— [$\mbox{\sc pm}$ MMM] $\mbox{\sc pm}$ HHHH $\Delta\Delta$ FF, made stoichedon with 1. 75, and with the smallest amount possible; any larger sum would require T, which was not used as appears from the trace of the last M.

L. 80—[MMMM]ΧΧΠΗΡΙΔΔΓΙΙΙΙΙ, restored for reasons given below.

L. 82— X \leq EN[οδίκον], restored by Cavaignae (l.c. p. lxvii), identifying them with the γραφαὶ ξενίας who were active in this very year (Philochorus, Frg. Hist. Gr. p. 398, 90).

L. 84— $TP[\iota\epsilon\rho οποιον]$, suggested by Meyer, who prefers however $T[\epsilon\iota\chi οποιον]$ (Forschungen z. alt. Gesch. II, pp. 100 n. 3, 104); cf. Andocides, III, 7.

L. 85—[$\lceil M M M M \rceil 1$, the only possible restoration, since I read the last figure as M, as does Cavaignac in his pl. II; others have read it Δ , as does Cavaignac himself at his p. 87.

L. 95— $[\tau]$ $\Im \in \Gamma \in \Gamma [\acute{a}\tau \alpha s]$, Kirchhoff and Michaelis; Cavaignac (l.c. p. 88) supposes an allusion to the makers of epistylia, but such specialization seems unwarranted.

L. 96—ΓΕΥΚΙΝΑΚ[αὶ ἐλάτινα], Cavaignae (l.c. p. 88, pl. II).

The most important of the facts revealed by this account is the exact size of the receipt from the Hellenotamiae, obviously a part of the tribute from the Delian confederacy. It was evidently the use of this that caused the controversy between Pericles and Thucydides, and most writers, therefore, as Meyer (Forschungen, II, p. 99) and Furtwängler (Masterpieces, p.424), suppose it to have been a large amount. But it is noticeable that though the Hellenotamiae appear in the accounts of the fourth, fifth, and ninth years, and probably therefore contributed during the first ten years for the erection of the Parthenon, in the last five years they gave nothing. From 437/6 to 433/2 B.C., we find that they devoted their attention to the Propylaea, and in the accounts of the Propylaea the sum they gave is specified as $\frac{1}{60}$ of the annual tribute, the ἀπαρχέ which

¹ The other seven (six) are so mutilated as to give no information.

was the rightful share of Athena (I. G. I, 260). It is practically certain that this was the very sum which had been diverted from the Parthenon, and which had been expended for that building during the first ten years.² Since Pericles therefore used only the $\dot{a}\pi a\rho \chi \dot{\epsilon}$ in his constructions, and not the money in the treasury of the Confederacy, it would appear that the accusations by Thucydides were unfounded, a fact which would perhaps account for the victory of Pericles. With the knowledge that it is a sixtieth of the tribute, the exact amount is easy to determine. Pedroli (in Beloch, Studi di St. Ant. 1891, pp. 101-207) estimates that in this Olympiad the total annual tribute amounted to 414 talents 5170 drachmae, while Cavaignae (l.e. pp. xliv, 91-92) gives 435 talents; the $\dot{a}\pi\alpha\rho\chi\dot{\epsilon}$ would have been $41486\frac{1}{6}$ or 43500 drachmae, respectively. The nearest possible approach to this in our inscription is [MMMM]XX[HHΔΔΔΓΙΙΙΙΙ, 426755 drachmae; all other possible restorations vary so much from a sixtieth of any reasonable tribute as to be certainly wrong; 3 we may then be certain that the total tribute in 444/3 B.C. amounted to 426 talents 4550 drachmae.

The remainder of column I is taken up by the prescript and receipts of the fifth year, fragments N (Cavaignac, Fig. 20) + I (I.G. I, 309), as dated by the name of the secretary for the Hellenotamiae; Michaelis had, however, assigned I to about the twelfth year.

L. 101 — [β oλ ϵ] ≤, Kirchhoff and Cavaignae.

Ll. 101–102 — ΤΙΜΟ⊙[εος 'Αναφλύστι]Ο≤, Penndorf, de Scribis, p. 132 (cf. p. 60, note 1).

L. $102 - MATEY[\epsilon]$, Cavaignae.

L. $102 - \Gamma POTO[\gamma \acute{\epsilon} \nu \epsilon_S]$, Cavaignac.

L. 104 — ΑΝ[τικλές], Kirchhoff (rejected by Cavaignae).

L. $109 - [\pi] APATAN[\iota \hat{o} \nu \tau \hat{o} \nu \tau \hat{\epsilon} s \theta \epsilon \hat{o}]$, Cavaignae.

¹ Furtwängler, to be sure, suggests that the sum given for the Propylaea was not the $\dot{\alpha}\pi\alpha\rho\chi\dot{\epsilon}$ but a second sixtieth (*Masterpieces*, p. 424; cf. Busolt, II, p. 568).

² Meyer's conjecture that the Hellenotamiae gave money for the Parthenon, for the buildings of the lower city, and for those at Eleusis (for all these except the Parthenon we have no evidence), at the same time that they gave the sixtieth for the Propylaea, is disproved by my dating of fragments of the accounts for the Parthenon.

³ The nearest are $\lceil MMM \rceil \rceil$ or $\lceil M \rceil XX \rceil$, i.e. $37675\frac{5}{6}$ or $59675\frac{5}{6}$ dr.

L. 110 — ΕΛΒΑ · · , a form of ἐγβαίνο, Cavaignac (l.c. p. lxvii).

L. 115 — X ≤ E [νοδίκον], Cavaignac.

L. $116 - \text{TEIX}[o\pi o \hat{o}v]$, Meyer (l.c. pp. 100 n. 3, 103); cf. Andocides, III, 7, and Plutarch, de glor. Ath. 8, Pericles, 13; Callicrates was at the head of these epistatae as well as of those of the Parthenon.

The expenses of the same year appear at the top of column II, just below the first annual prescript, on D + E(I.G.I,300). This and the following fragments of Column II are so fragmentary that they are printed here with little attempt at restoration.

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L. 8 — $[\epsilon \rho \gamma o \lambda a \beta \epsilon \sigma a]$ NTI or similar, Cavaignae (l.c. p. lii).

L. 17 — EPTE, Cavaignac.

L. 21 — [τούτον] ΤΙΜΕ, Cavaignae.

Of the sixth year, we have only a few letters of the receipts, some appearing on A (I.G. I, 220), which we have joined to E, others on G (I.G. I, 305) which, as will appear from the reverse (ninth year), falls in this position.

The fragment from the bottom of column II, M (I.G. I, 327) gives us the conclusion of the seventh year (the sixth in Cavaignac's scheme); the numbering of the lines is based on the fact that this column ends seven lines higher above the bottom of the stele (0.195 m.) than does column I (0.088 m.).

L. 102 — a payment probably for channeling columns.

L. $103 - [\epsilon \rho \gamma] \text{OI} \lesssim$, Cavaignae; this was probably work on the ceiling and roof.

L. 106—cf. the Propylaea stele, col. II, l. 69.

The eighth year begins on the reverse of the stele, in column III, fragment D (I.G. I, 302); the first line is three lines lower, from the top of the stele, than is the first line of column IV. Fragment E, which should have the continuation of this account, is now badly worn and shows nothing. On the other hand, fragment L (I.G. I, 311 a), obviously from the reverse, cannot be assigned to the ninth, eleventh, or twelfth year because it contains payments for stonework which are duplicated on fragments certainly to be assigned to these years; these formulae for stonework on L differ completely from those used in the ninth to the twelfth years inclusive; and the buying of ivory and silver, and the payment to gold workers, on L, must certainly antedate the selling of ivory, silver, and gold from the ninth year onward. By elimination then the only suitable year of the six on the reverse is the eighth; here fragment L does not come into actual contact with any other fragment, but the length is such as to agree with the allowance of thirty-three lines to this year, as determined by the location of H, of the ninth year. The last line is given by fragment G (I.G. I, 303), which is discussed below.

L. 7 — $TE[i\theta\rho\acute{a}\sigma\iota\sigmas]$, the only possible demotic, if the line begins with a demotic.

L. 21 — $\mathsf{E}[\lambda \epsilon \phi as \epsilon ov \epsilon \theta \epsilon]$, Cavaignae; confirmed by the traces of L and E ; ef. I.G. I, 298, suppl. p. 146.

L. 24 — probably work on the ceiling and roof, continued from the previous year.

L. 29—perhaps for the painted decoration of mouldings, but more probably, when taken into connection with ll. 21–22, 30–31, for the pedestal of the Athena Parthenos, which contained decorations in ivory and gilded silver (*I.G.* II, 652 B, 15; 654 b, 6; 660, 52; 661, 22; 676, 40; 701 II, 60; 703, 10), and must have been finished along with the statue itself in this same year (cf. the account of the ninth year).

Ll. 30-31—this work in silver might, like the ivory in ll. 21-22 (cf. the accounts of the temple of Asclepius at Epidaurus, Baunack, Aus Epidaurus, ll. 64-65), appear to be part of the decoration of the doorways (I.G. II, 675, 4; 678 A, 1, 29; 701 11, 47; 704; 708), were it not that the doorways are not mentioned until the tenth year.

L. 33 — possibly [hv] \cap \cap $[\gamma o \hat{i} \hat{s}]$.

For the ninth year almost the complete record is preserved. Fragment H we have fitted accurately to the bottom of E; it contains the beginning of a prescript, in ll. 38-41 according to the distance below the top of the stele; the line above this was blank, wherefore the eighth year must have ended in 1. 36. Bannier had correctly suggested (Rh. Mus. 1908, p. 429) that B and G be associated on account of their contents; he is followed by Cavaignac, but Woodward remains unconvinced (l.c. p. 195, n. 1); there is no actual point of contact. The date is given by the fact that, although this pair of fragments is certainly from the reverse, the demotic of the secretary for the Hellenotamiae in G (I, G, I, 305) is $\lceil Pa\mu \rceil NO \leq |O| \leq \rceil$ or $\lceil Ha\gamma \rceil NO$ ≤|O[s],¹ which can belong to none of the years of the reverse except the ninth; the demotics of these secretaries for the five other years are known, the eighth $H\nu\beta\dot{a}\delta\epsilon_{S}$ (I.G. I, 240), the tenth 'Αχαρνεύς (I, 242), the eleventh Κεραμεύς (I, 243), the twelfth Αἰχσονεύς (I, 244, 544), the thirteenth 'Αχαρνεύς (I,

¹ Hitherto wrongly restored $[M\nu\rho\rho\iota]NO \leq |O[s]$, for which there is not space.

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- 316). The connection of H and G to form the prescript has already been discussed, and confirms the location of these fragments in the ninth year. The ninth annual account was composed therefore of H (I.G. I, 306), G (I, 305), and B (I, 297 a).
 - L. 38 $[E_{\pi i} \tau \hat{\epsilon}_s \alpha \rho \chi \hat{\epsilon}_s h \hat{\epsilon}_i]$, Kirchhoff.
- L. 38—[Δωννσί]ΦΙLΟ≤, rests only on the amount of space to be filled; ['Αριστό]ΦΙLΟ≤ restored here by Cavaignac.
- L. 39— PPO[70s] hitherto restored, but B exists as the fourth letter.
- L. 40 $\mathsf{E} \wedge \mathsf{P}[a\mu\mu\acute{a}\tau\epsilon v\epsilon]$, the usual restoration, is impossible after the same word at the end of the preceding line; it must be some proper name.
- L. 41 X≤Y[πεταόν], Cavaignac; this does not seem the proper place for a demotic.
 - L. 42 [— φιλος έγρ], Kirchhoff; ['Αριστόφιλος έγρ], Cavaignac.
 - L. $48 \lceil Mv\rho\rho\iota \rceil NO \leq IO \lceil s \rceil$, Kirchhoff, as discussed above.
- I. 49— [åργυρίο πραθέντο] \leq , restored because the number of letter spaces fits, and because the weight is omitted, as it should be in the case of unwrought silver.
- L. $50 [\pi \rho a \theta \acute{\epsilon} \nu \tau] \mathsf{ONP}$, Cavaignae; perhaps $[\sigma \tau a \theta \mu] \mathsf{ONP}$ might be better.
 - L. 51 , [ρυσίο]; Cavaignac saw here a trace rather of E.
- L. 53—X \leq YLON[$\pi\rho\alpha\theta\acute{\epsilon}\nu\tau\sigma$]I, Bannier; this was evidently surplus wood left from building the ceiling and roof in the two preceding years.
- L. 54 EY Φ EP[o], probably the father of $\Pi \rho \epsilon \pi \iota s$ (Aristophanes, Acharn. 843; I.G. I, 225 k, suppl. p. 174; Ath. Mitt. 1894, p. 163).
- L. 55—≤AYPONC [s], who contributed also to the Propylaea in 437/6 B.c.
- L. 59 Γ ENTE [$\lambda \hat{\epsilon} \theta \epsilon \nu \kappa \alpha \hat{\iota} \kappa . \tau . \lambda .$], Kirchhoff; the $\kappa \alpha \hat{\iota}$ I omit because of lack of space.
 - L. 61 [hoδοποι] OI≤, Woodward (l.c. p. 191, n. 3), who, like Liddell
- ¹ For the two last see the discussions of the Propylaea accounts of the corresponding years.
- ² Bannier (Rh. Mus. 1908, p. 429 n. 2) had proposed that G and B be placed below C, which conflicts, however, with my junction of C and F. Cavaignac (l.c. p. lix) rightly dated G and B in the ninth year by elimination, but rather accidentally, since he supposed that the secretary's demotic in the twelfth year was $\epsilon \kappa \ \tau \hat{\epsilon} \ \cdots \ (I.G. I, 244$; really $Al\chi \sigma o \nu \epsilon \dot{\nu} s$, cf. the Propylaea stele, col. I, l. 63), and that the thirteenth year was on a narrow edge. Woodward would assign B to either the tenth or the thirteenth year.

and Scott, cites Xenophon, Cyr. VI, 2, 36 and Aeschines, 57, 27; a better analogy is the speech of Pericles (Plutarch, Pericles, 12), mentioning the employment of δδοποιοί on this very building; cf. I.G. II, 834 c, 28, also Francotte, L'industrie dans la Grèce ancienne (II, p. 86), and Ferguson (Trans. Am. Phil. Assoc. 1904, p. 17).

L. 62 — [ἐπὶ τὰ κύκλα], Woodward (l.c. 191–192); previous restorations were ἐπὶ τὸς ὄνος (I.G. I, 297 b) or ἐπὶ τὰ hυποζύγια (I, 297 a).

L. 63 — $[\tau \delta s \ h \epsilon \kappa \sigma \nu \tau \alpha s \ \Gamma]$ ENTEV $L[\theta \epsilon \nu]$ in previous readings.

L. 65—restored by Woodward (l.c. p. 192).

The selling of gold and silver, to which ivory was added at least as early as 437/6 B.C., began in this ninth year (439/8) and continued until the close of the work. These materials were sold in such large quantities (cf. the fourteenth year) that they cannot have come merely from the pedestal of the chryselephantine statue; the epistatae of the Athena Parthenos must have turned over to the treasury of the Parthenon the surplus material remaining after the completion of the statue. We may be certain, therefore, of the correctness of the generally received view, which makes the date given by the chronographers (Eusebius Armen. 440/39 B.C., Hieronymus 439/8, Philochorus 438/7) that of the completion of the statue, and not of its inception, as Pareti would prefer (Röm. Mitt. 1909, p. 271 f.). The evidence seems to show merely that the actual work at least was finished in 439, though the dedication may have been postponed to the Panathenaic festival of 438 B.C.¹ In this same

¹ In the dilapidated condition of the Geneva Papyrus (Nicole, Le procès de Phidias), little reliance can be placed on Nicole's and Pareti's rival readings of what are supposed to be archors' names, $Mo[\rho]v\chi l\delta ov = [A]v\tau[\iota]o\chi l\delta ov$, and $\lceil E \dot{\vartheta} \theta v \rceil(\mu) \dot{\epsilon} vovs = \lceil A \rceil \psi \epsilon \lceil \psi \rceil \delta ovs$. From these Nicole attempts to show that the statue was not quite finished even in 438/7. Pareti is even more revolutionary and would place all the work on the statue between 439 and 434, but his evidence (l.c. p. 278) is really adverse to his theory; the sale of wood in the ninth year is hardly the surplus left from the frame of the statue, which would have been a petty amount, but rather that left from the ceiling and roof constructed in the seventh and eighth years; the sale of surplus gold and ivory does not begin in 434/3, for gold was first sold in the ninth year (439/8), ivory perhaps in the tenth and certainly in the eleventh (437/6), when according to Pareti's view the epistatae should really have bought gold and ivory. The actual expense accounts of the statue (I.G. I, 298 and suppl. p. 146, I, 299, 299 a, and 556), which might be expected to settle the matter, unfortunately cannot be dated; they are probably of the years between 443/2 and 439/8 B.C. They include receipts from the treasurers of Athena, who in 443/2 ceased to contribute to the Parthenon.

year, 439/8, the completion of the statue was succeeded by the beginning of the pediment sculptures. In this sequence of events there is nothing opposed to the generally accepted view that the supervision exercised by Phidias over the buildings of Pericles was concerned chiefly with their sculptured decoration. The bringing of marble from the Pentelic quarries to the Ergasteria on the Acropolis,2 in the last year of work on the statue, but before the pediment sculptures had been begun (eighth year, 1. 27), would seem to favor the interpretation that Phidias intended to turn from one to the other. Against attributing the pediment sculptures to Phidias, now that they must be dated after 439, is the badly contaminated passage from Philochorus (Schol. Aristophanes, Pax, 605), a vague reference in Seneca (VIII, 2), and Nicole's dubious interpretation of the Geneva Papyrus (now refuted by an equally dubious interpretation by Pareti). In favor of placing the work on the Olympian Zeus before that on the Athena Parthenos, so that Phidias could have been in Athens from 439 to 432, is the earlier date of the Temple at Olympia, the evidence for placing the trial just before the Peloponnesian War (Aristophanes, Pax, 605; Diodorus, XII, 39-41; Plutarch, Pericles, 31; Pseudo-Aristodemus, XVI, 1; Suidas, s.v. Φειδίας), and the sequence of events in the Parthenon inscriptions. The second alternative seems to me the better; and I still believe that the pediment sculptures, dating from 439/8 to 433/2 B.C., were done under the direct supervision of Phidias himself.3

Of the tenth year we have only the end, preserved on fragment K (I.G. I, 311), assigned to this position because the ends of the eighth, eleventh, and twelfth years are preserved on other fragments, while the entry $\mu \iota \sigma \theta \circ \mu \dot{\alpha} \tau \circ \nu$ for the ninth

¹ Mr. Woodward places the fragment B (I, 297 a), which reveals this fact, in the tenth or thirteenth year, making the first year of work on the pediments the tenth or eleventh of the series, on the principle that if the work began in the ninth year it would last too long, at least six years (*l.c.* p. 195). It actually did last six years, if not seven.

² The use of the word Ergasteria in the following years shows plainly that they were the sculptors' workshops.

³ Mr. Woodward, to whom the discovery of the payments to the ἀγαλματοποιοί is due, accepts Nicole's dates and concludes that the sculptors received "little or no assistance from Phidias himself" (l.c. p. 198).

⁴ Dated by Cavaignac as of the first year.

year appears on B, and because if K were placed in the thirteenth year at the end of column IV it would appear, to avoid colliding with fragment I, too high above the bottom of the stele.

L. 95—these doors, evidently of the naos, Cavaignac supposes to have been those of a workshop or temporary gates of the Acropolis.

L. 96— HIEP[âs οἰκίαs], Michaelis, on the analogy of the wrongly identified fragment *I.G.* I, 312–313.

L. $97 - \lceil \hat{\epsilon} \pi \iota \rceil \leq KEYE \leq$, Bannier.

L. 98—the salaries of the epistatae and their secretary, cf. col. V, l. 38.

The record of the eleventh year, at the top of column IV, can be almost completely restored from C + O + P (*I.G.* I, 297 *b*, Cavaignac, Fig. 26, *B.S.A.* 1909–1910, p. 187), as joined by Woodward and Cavaignac, and identified by the name of the first secretary of the senate, Peithiades.

- L. 1 ANI [$\iota \kappa \lambda \hat{\epsilon}_s$ 'Oê $\theta \epsilon \nu$?] EAPAM, Woodward (l.c. p. 188).
- L. 3 [μμάτευεν ἐπὶ Εὐθυμέν] Ο≤, Woodward.
- L. 9—restored according to the number of missing letters, this is the first recorded sale of ivory.
- L. 13—a sale of the wooden wheels used for transporting marble; the last two words read by Cavaignac.
- L. 15— $[\kappa\alpha]$ TTITEPA, Cavaignae; but the final O is plainly to be seen in his Fig. 26; this is probably the surplus of what was used for the trappings and decorations of the Panathenaic frieze.

The beginning of the twelfth year appears on F (I.G. I, 300 a), which joins C. The fragment Q (B.S.A. 1909-1910, p. 190) was correctly dated by Woodward (l.c. pp. 194-196) as of the twelfth year with the beginning of the thirteenth, though on the basis of a hypothesis which does not exclude the eighth and ninth years or the ninth and tenth; I therefore note that my location of G and B confines Q to the twelfth and thirteenth years. The numbering of the lines on F is made certain by the junction to C; the fragment Q is located by allowing to the twelfth year the average thirty-three lines.

L. 34—the unusually long space for the name of the first secretary of the senate is confirmed by a similar long gap in the Propylaea record of this year.

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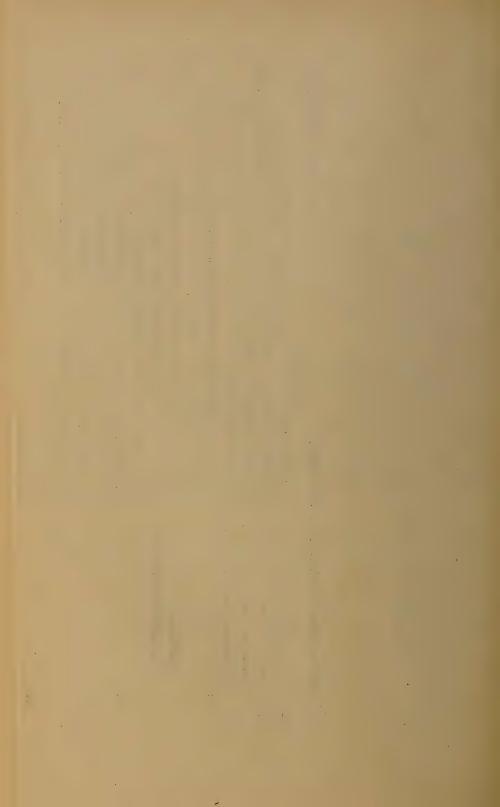
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L. 35 — [ἐνιαυτο το]ΥΤΟ ΤΑ[δε], Foucart and Cavaignac.

L. $56 - [\lambda \iota \theta a \gamma] O \wedge [\iota a s]$, Woodward.

L. $58 - [\tau] OL L I O[\nu]$, Woodward implies that only one stone was transported in this year, and that the plural $TO \le$ in the next line is therefore a mistake; it is better to suppose that $\tau os \lambda i \theta os$ was intended as in other years, and that the mistake lay in cutting L twice.

L. 62 — omitted by Woodward.

L. 63 — [τούτο τάδε], Woodward.

The first line of the thirteenth year appears on the same fragment Q, as was recognized by Woodward. Here too must come the reverse of Cavaignac's smaller fragment N, the obverse of which belongs in the fourth and fifth years; it contains only two letters, O≤, perfectly preserved as when the chisel left them, so that it is difficult to comprehend Cavaignac's inability to find them a second time (l.c. p. lx, n. 2), and his representation of them as one above the other. These two letters appear at the level of l. 96 of column I, and so 0.43 m. above the bottom of the stele; the last certain line above this is l. 39, opposite l. 35 of the obverse; the restoration of the obverse requires sixty-one lines in the gap, equivalent to sixty-seven of the more closely spaced lines of the reverse, so that the two letters O≤ would have appeared in l. 106.

L. 67—the choice of formulae allowed here by Woodward (l.c. p. 193) is impossible; we must restore that of the five last years.

L. 67—[···]O \leq , Woodward, but a vertical hasta, as of E, appears on the stone.

L. 106—the length of the line is evidence for the restoration proposed.

On the analogy of the eleventh and twelfth years, we should restore four more lines after this entry, making 110 lines in all, with the account ending 0.37 m. above the bottom of the stele.

Evidently the work was now nearly finished, and therefore, though both sides of the stele had been filled, it was not deemed necessary to set up a second stele. The edges, hitherto probably left rough as they still remain in the Propylaea stele, were worked smooth and formed additional space for the accounts. That of the fourteenth year, inscribed on the right

edge (with reference to the obverse), is now complete, beginning on fragments D + E (I.G. I, 301), and continued on A (I.G. I, 221) and H (I.307), which I fitted side by side to the bottom of E.

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₹ E Γ I < I A T E ₹ I H O I
              K L E S E A P A M M A T E
              E ≤ T E T A P T E
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                 T E \leq \odot E O[\epsilon \tau] A M I E Y[\delta \nu]
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                 ₹ T A ⊙ M O N P A Δ Δ ΓΔ Γ F F F ]
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                NALOMATA
      -- H H
                  NEMATO[v]
      -- - L F 1
                M \mid \leq \bigcirc \bigcirc \land \lceil \alpha \mid \tau \mid o \mid \nu \rceil
30
                [λ] Υ ΓΟ Ρ[γοις Π εντελε]
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L. 17—the treasurers of Athena, having devoted their attention exclusively to the statue of Athena between 443/2 and 439/8 B.C., and to the Propylaea in 437/6 to 435/4, now return to the Parthenon.

L. $22 - \square \Delta \Delta \Delta$ (?), Kirchhoff; I complete the weight to fit the ratio 14:1, as described below.

L. 25—the weight of the ivory was more than 2 talents 60 dr., but less than 4 talents 5960 dr.; the value, in proportion to silver or gold, was at most less than half of the quotations for the best ivory in recent times, though this is offset by the modern decrease in the actual value of gold and silver.

Ll. 35-36 — the formula was suggested by Woodward (*l.c.* p. 192, n. 4) in connection with *I.G.* I, 307, and is now confirmed by the junction to *I.G.* I, 221, which adds the interesting fact that in 434/3, the sixth year of work on the pediments, the sculptors were paid 16,392 dr.

L. 38—no word indicating the class of people who received this payment, such as the use of the dative case would require, can fit this space; the only possible word is καταμενίοις, which should properly be in the genitive case; this is the usual place, just after, the payment to the sculptors, for the entry καταμενίου. These are the monthly salaries of the architect, the epistatae, and their secretary; the amount, 1800 dr., is correct for six persons paid 30 dr. a month, i.e. the architect, the secretary, and four epistatae (whose number varied, however, from three to five).

L. 39—the amount of the surplus is unknown; the receipts amounted to 29,147 dr. 4 ob., of which at least 20,620 dr. 3 ob. were expended.

Herodotus (III, 95) says the ratio of values of equal weights of gold and silver was as 13:1; but from the slight traces on our inscription Kirchhoff conjectured that the ratio rose to rather more than 14:1 (Monatsb. Berl. Akad. 1861, 860 f.). On a fragment of the accounts for the chryselephantine statue (I.G. I, 298 suppl. p. 146) one may read, according to the usual interpretation, that 6 talents, 1528 (or -9) or 1618 (or -9) drachmae, and 5 obols weight of gold cost 87 talents 4652 dr. of silver. It seems better to read the IIIII with the marginal entry, as 87 talents 4652 dr. 5 ob., a fourteenth of which would be 6 talents 1618 dr. ½ ob. (TXP[H]APHH[C]), exactly fitting the indications on the stone and giving the ratio as exactly 14:1.

By the end of 433/2 B.C. the work had been completely finished.¹ As appears from the junction of F (*I.G.* I, 301 a) to C, the account of this fifteenth year was inscribed, not on the narrow edge below the fourteenth year, as has been supposed, but on the opposite narrow edge, so that all four faces of the stele were used. The position of the account is remarkable; instead of beginning at the top of the stele, as on the three other faces, it begins 0.57 m. below the top.

The dimensions of the stele can be calculated with a fair degree of accuracy. The thickness, as already noted, was uni-

 $^{^{1}}$ Michaelis attempted to assign to 432/1 B.c., the fragment of the third year, I.G. I, 302 $\alpha.$

formly 0.198 m., except at the very bottom, where it was increased to 0.21 m. by a werkzoll (as on the Propylaea stele) covering the reverse to a height of 0.20 m. As for the width, we may estimate from J that the money column was at least 0.21 m. wide, the item column at least 0.31 m., both together amounting to a width of more than 0.52 m. The length of the prescript of the eleventh year (O + P), i.e. the combined widths of the money and item columns, was 0.58 m.² The total width of the two double columns would be somewhat more than twice this amount, or about 1.20 m., a result similar to that which we shall obtain for the Propylaea stele. The height can be estimated only by the spacing of the lines. On the obverse, the first twenty-nine lines occupy a space of 0.51 m., after which the lines are spaced regularly 0.0165 m. In the first column we require one hundred and sixteen lines, measuring 0.51 m. (ll. 1-29) + 1.43 m. (ll. 30-116) = 1.94 m.; the last line is 0.088 m. above the bottom of the stele, which would have been therefore about 2.04 m, high. Each broad face contained two double columns, each narrow edge one. In column I, including the first annual prescript which extended entirely across the stele, were one hundred and sixteen lines, ending 0.088 m. above the bottom; in column II, one hundred and nine lines ending 0.195 m. above the bottom; on the reverse, the werkzoll covered about 0.20 m. at the bottom, and the inscriptions ended about 0.16 m. higher; on the right edge, the fourteenth year's account began at the top and covered forty-four lines; and on the left edge the fifteenth year's account began 0.57 m. below the top, and was of unknown length.

In conclusion, the historical facts gleaned from this inscription may be summarized, with the assistance of other chronological sources, somewhat as follows:

Year I, 447/6 B.C.; Timarchides archon, — of Aphidna undersecretary of the epistatae, Diodorus of Paeonidae secre-

¹ This appears on M, but is badly footworn, having evidently formed the surface of a mediaeval pavement.

 $^{^2}$ The letters are spaced $1\frac{1}{3}$ cm. on centres; the first letter of P is 0.36 m. from the right edge of the stele, and sixteen more spacings are needed to complete the restoration.

tary of the Hellenotamiae. The Parthenon begun with Ictinus and Callicrates as architects.

Year II, 446/5 B.C.; Callimachus archon. Work temporarily suspended on account of the campaign in Euboea.

Year III, 445/4 B.C.; Lysimachides archon, Eu—— secretary of the Hellenotamiae. Work on the Parthenon resumed.

Year IV, 444/3 B.C.; Praxiteles archon, Strombichus of Cholleidae secretary of the Hellenotamiae. The earliest extant notice of the contribution of the $\dot{\alpha}\pi\alpha\rho\chi\dot{\epsilon}$ (then 42,675 dr. 5 ob.); Pericles falsely accused of the misuse of the Delian funds, by Thucydides; the charge dismissed and Thucydides ostracized. The new fleet of triremes finished and the surplus money (90,000 dr.) turned over to the Parthenon.

Wood is purchased, probably for scaffolding.

Year V, 443/2 B.C.; Lysanias archon, Timotheus annual secretary of the epistatae, Anticles appointed permanent undersecretary; Sophiades of Eleusis secretary of the Hellenotamiae. The middle long wall finished by Callicrates, and the surplus funds devoted to the Parthenon. The treasurers of Athena cease to contribute to the Parthenon, apparently because their money was needed to begin the chryselephantine statue.

Year VI, 442/1 B.C.; Diphilus archon, Anticles undersecretary of the epistatae, Chalcideus of Melite secretary of the Hellenotamiae.

Year VII, 441/0 B.C.; Timocles archon, Anticles undersecretary of the epistatae. The columns channeled, and work begun on the ceilings and roof.

Year VIII, 440/39 B.C.; Morychides archon, Anticles undersecretary of the epistatae, Sosistratus of Hybadae secretary of the Hellenotamiae. Work on the ceilings and roof completed; ivory bought, and gold and silver workers paid, for decorating the pedestal of the chryselephantine statue; marble brought to the ateliers, probably to be in readiness for beginning the pediment sculptures.

Year IX, 439/8 B.C.; Glaucinus archon, Dionysiphilus (?) of Probalinthus secretary of the epistatae, Anticles undersecretary, —— of Rhamnus (or Hagnus) secretary of the Hellenotamiae. Contributions from private individuals, hitherto given for the chryselephantine statue, now given to

the Parthenon. The statue completed by Phidias; its surplus material turned over to the Parthenon by the epistatae of the statue, and the gold and silver begin to be sold, perhaps to assist in paying for the carving of the pediment sculptures (which were probably likewise the work of Phidias and of his assistants). The Parthenon virtually completed, and surplus wood from the scaffoldings and roof is sold. The pediment sculptures begun and no other work done in this year.

Year X, 438/7 B.C.; Theodorus archon, Anticles undersecretary of the epistatae, —— of Acharnae secretary of the Hellenotamiae. The doors of the naos set in place, completing the work on the temple; the statue of Athena Parthenos dedicated at the Panathenaic festival.

Year XI, 437/6 B.C.; Euthymenes archon, Peithiades first secretary of the senate; Anticles acting secretary of the epistatae,—cus of the Ceramicus secretary of the Hellenotamiae. The Propylaea begun, whereupon the Hellenotamiae cease to contribute to the Parthenon, and the treasurers of Athena, instead of resuming their contributions for the construction of the Parthenon (now that the statue has been completed), likewise divert their funds to the Propylaea. Surplus ivory and tin sold, and work henceforth confined to the pediment sculptures.

Year XII, 436/5 B.C.; Lysimachus archon, Anticles appointed permanent secretary of the epistatae, Philetaerus (or Philemonides) of Aexone secretary of the Hellenotamiae.

Year XIII, 435/4 B.C.; Antiochides archon, —— as first secretary of the senate, Anticles secretary of the epistatae, Thoinilus (of Acharnae) of the Hellenotamiae.

Year XIV, 434/3 B.C.; Crates archon, Metagenes first secretary of the senate, Anticles secretary of the epistatae, Crates (of Lamptrae) of the treasurers of Athena, Protonicus (of the Ceramicus) of the Hellenotamiae. As the Propylaea approach completion, the treasurers of Athena give part of their funds to the Parthenon sculptures. Of the total receipts 29,147 dr. 4 ob. in this year, 16,392 dr. given as wages to the sculptors, and 1800 dr. as salaries to the epistatae and their secretary.

Year XV, 433/2 B.C.; Apseudes archon, Critiades first secretary of the senate, Anticles secretary of the epistatae, Euthias

(of Anaphlystus) of the treasurers of Athena. The Parthenon sculptures completed and the accounts closed; Phidias accused of embezzlement and impiety, imprisoned, and later executed; the outbreak of the Peloponnesian War at the same time terminates work on the Propylaea and the Erechtheum.

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CORRECTION

In the last line of the note on page 542 of the last volume of this Journal (XVI, 1912, p. 542), for 30.95 m. read 26.40 m.

Archaeological Institute of America

GENERAL MEETING OF THE ARCHAEOLOGICAL INSTITUTE OF AMERICA

DECEMBER 27-30, 1912

THE Archaeological Institute of America held its fourteenth meeting for the reading and discussion of papers at the National Museum, Washington, Friday, Saturday, and Monday, December 27, 28, and 30, 1912, in conjunction with the American Philological Association, and the Society of Biblical Literature and Exegesis. Six sessions were held for the reading of papers, and at two evening meetings addresses on archaeological subjects were delivered. The abstracts which follow were, with few exceptions, furnished by the authors.

FRIDAY, DECEMBER 27. 2.30 P.M.

1. Professor W. Sherwood Fox, of Princeton University, Two Tabellae Defixionum in the Royal Ontario Museum.

Two tabellae defixionum were purchased in Athens by Mr. C. T. Currelly, Director of the Royal Ontario Museum of Archaeology, Toronto. Nothing is known of the circumstances surrounding their discovery. A careful study of the chemical condition of the lead and of the texts makes it clear that they are not modern forgeries. The first tablet is a roughly rectangular layer of thin lead measuring 9 by 7 cm. It seems to have been originally folded double. Writing appears on both sides, the entire text consisting of what seems to be a list of names, probably those of legal opponents. But as the letters of the several words are promiscuously confused, there is no certainty as to their significance.

The second tablet is an almost circular (9 by 7 cm.) plaque of thick lead. It is inscribed on one side only, the text consisting of a series of five curses of almost mutually identical character against a certain Aristoboulus, the opponent at law of the framer of the imprecation, who is, of course, unknown. Both tablets might have been written at any time during the third and fourth centuries B.c.

2. Professor William N. Bates, of the University of Pennsylvania, A Cylix in the Style of Brygus.

This paper will be published in full in a later number of the Journal.

3. Dr. A. Pelzer Wagener, of Williams College, Roman Remains at Velletri.

The modern town of Velletri probably occupies the exact site of the Volscian and later Roman town of Velitrae. In the town itself, where, in Roman times, stood at least four temples besides a basilica and an amphitheatre, there are visible now only two tufa walls of Roman material but obviously rebuilt, and a large underground reservoir. In the immediately surrounding territory, however, a number of Roman villas have left reminders either in walls existing to the present time or in the names of the localities in which they were situated (Tivera, Colle Otone, etc.). Thus at the side of the road leading from the town to the railway station the walls of a small Roman villa have been excavated. At San Cesario are the remains of a large villa popularly identified as that of the Octavian family. Of especial interest are a large underground cistern and a semi-circular room with five niches either belonging to the baths or serving as a fountain. Again, at Civitana a rectangular building, the walls of which are Roman, marks the centre of a large estate which stood here during the Middle Ages, and the buildings of which were all built within and upon old Roman constructions. At Incudini near the line of the old Via Appia are portions of a Roman aqueduct.

4. Dr. Clark D. Lamberton, of Western Reserve University, The Madonna of the Prophet.

There is some doubt as to which is the earliest painting of the Madonna in art. The distinction lies between two, both in the catacomb of Priscilla at Rome. The one which is perhaps the older is a treatment of the Adoration of the Magi, and belongs to the scheme of decoration of the so-called Greek Chapel. The other is in the arenarium section, and is known as the "Madonna of the Prophet." This title is given to it because there stands beside the seated Virgin an elongated male figure, bearded, clad in the pallium and sandals, holding in one hand a manuscript roll, and with the other pointing to the Virgin and Child and to a star which shines over their heads. The prophet is to be identified as Isaiah, whose prophecy in chap. vii, verse 14, was regarded by second century apologists as a direct prediction of the Virgin birth of Christ. To this conclusion also points

the prophecy of Balaam concerning the star in Numbers xxiv. 17, which, through a strange error, was attributed to Isaiah by these writers. The painting belongs to the early second century. (Reproduction in Wilpert's Malereien der Katakomben Roms, II, pl. 22; argument in text ad loc.)

5. Mr. Lacey D. Caskey, of the Boston Museum of Fine Arts, The Statue of a Mounted Amazon in the Museum of Fine Arts, Boston.

In his brief discussion of this fragment (Ausonia, III, 1909, pp. 97 ff.) W. Amelung maintains that it is a part of a pedimental group, that the figure was designed to be seen from its left side, that it may come from the west pediment of the temple of Asclepius at Epidaurus, and that in any case its resemblance to the Epidaurian Amazon is so strong as to show that it also is a work of Timotheus, or at least a product of his school. An examination of the original fully confirms the first theory, but shows that the statue was meant to be seen, like the Epidaurian figure, from its right side. The close correspondence in the main lines of the two groups is an argument against placing them side by side, and the statue in Boston is apparently too large to have stood even in the very centre of the Epidaurian pediment. The attribution to Timotheus can, therefore, be based only on the general resemblance in the pose, the type of the horse, and the style of the Amazon's drapery.

SATURDAY, DECEMBER 28. 9.30 A.M.

Section A. Oriental. The following archaeological papers were presented:

1. Dr. W. Max Müller, of the University of Pennsylvania, The Doomed Island of Philae.

Since the increase in the height of the dam at Assuan the injury to the buildings on the island of Philae has been great, and their total destruction is only a matter of time. In order to rescue the epigraphic material the Berlin Academy sent to Philae an expedition which copied the hieroglyphic and Greek inscriptions. In 1910, on a grant from the Carnegie Institution, Professor Müller undertook to copy the demotic inscriptions. As these are usually written in black or red ink they are quickly destroyed by water. About 200 inscriptions were copied, some of considerable historical and philological importance. These inscriptions belong to the latest period of the Egyptian language, even overlapping the Coptic. Some are

as late as the fifth or even sixth century A.D., when the worship of Isis was finally abolished. They will be published by the Carnegie Institution.

2. Professor W. Sherwood Fox, of Princeton University, Old Testament Parallels to Tabellae Defixionum.

The hand of God was placed upon sorcerv among the people of Israel, yet the evil practice had wide recognition among the lower classes. One would expect that by a sort of osmotic process it would pass in some degree into the higher religious life of the nation, and find expression in its sacred writings. This is just what occurs in the following passages of the Old Testament: Jud. xvii. 1-2; Mal. iii. 8-9; Zech. v. 2-4; Jer. li. 60-64; Ezek. iv. 1-3; II Kings xiii. 17-19. These passages reveal a remarkable kinship with the Greek and Roman tabellae defixionum when analyzed as we should analyze this vulgar department of inscriptional records. The analysis is based on the following headings: (1) against whom the curses are directed; (2) authors; (3) prompting causes; (4) intended effects; (5) whether written or spoken; (6) materials on which written; (7) symbolism; (8) secrecy or publicity; (9) obligamentum magicum. In respect to the last heading the conclusion is reached that the populace looked on God as the Great Magician who put the magic hand upon Himself. All these passages are, therefore, virtually defixiones, and point to the Semites as the source of a pronounced shaping influence on the Greek practice of that name.

3. Professor George A. Barton, of Bryn Mawr College, *The Inscription of Enkhegal*, *King of Lagash*.

This inscription, on a stone tablet $4\frac{7}{8}$ in. long, $5\frac{1}{2}$ in. wide, and 13 in. thick, was seen by Hilprecht in the hands of a dealer from Bagdad in the summer of 1896, and acquired by the museum of the University of Pennsylvania. Hilprecht in that same year published a note on it in the Zeitschrift für Assyriologie, XI, pp. 330 f., in which he said that the writing indicated that it belonged to the general period of Ur-Nina. Thureau-Dangin, who had seen the tablet while in the hands of the dealer, published in the same journal four years later (XV, p. 403) a statement that the tablet had made on him the same impression that it had upon Hilprecht. Up to the present time that is all that has been known of this text. King, in his History of Sumer and Akkad, p. 106, was compelled to draw all his knowledge of Enkhegal from these two notes. King places Enkhegal before Ur-Nina, but after Lugal-shag-engur and Badu. The inscription proves to be a record of the purchase of several tracts of land in the reign of Enkhegal, some of which

were for the king himself. Some of this land had been captured from the city of Umma, between which and Lagash there was constant friction, and formed a part of the famous plain of Guedin, over which in later reigns there were fierce wars (see King, op. cit. pp. 117, 121 f., 126, 162). One of the landholders is designated the brother of Shidmal (?) ru, who is described in the same terms as Enkhegal, and was probably a former ruler of Lagash. One of the interesting features of the tablet is that copper was, along with grain, the medium of exchange employed at the time the text was written.

4. Professor H. C. Tolman, of Vanderbilt University, The Grave Relief of King Darius.

The paper treated specifically of the costume of the national types of the empire, as seen in the two rows of fourteen figures each which support the throne $(q\bar{a}\theta u)$ on the grave relief of King Darius; the long flowing robe girded at hip, upper part smooth, lower falling in cross folds in front and vertical folds on the side, and the high tiara of the Persian (confirmed by an inscription); the close-fitting coat and trousers, and round cap of the Mede (confirmed by an inscription); the knee trousers and high boots of the Arachosian; the long trousers and trimmed coat of the Scythian; the hip apron and Hindu turban of the Indian as seen in the Açoka reliefs; the high bashlyk of the "pointed-capped Scythian"; the shawl-like outer garment and pointed hat with tassel of the Babylonian (confirmed by an inscription); the short, tightly fitting coat and cloth turban of the Assyrian (confirmed by an inscription); the long, smooth shirt of the Egyptian: the loose, sleeveless chiton of the Ionian; the chiton and petasos of the "shield-wearing Ionians" (yaunā takabarā; the negro physiognomy of the Kushian.

It is evident from the inscriptions over the first and second figures that we must reverse the customary terms "Median" and "Persian" costume. The high tiara and long garment reaching to the ankle must be designated *Persian*, while the round hat, smooth doublet, and trousers are *Median*.

This important list gives the tributary nations at the close of Darius' reign, and represents the total achievements of the Great King. There is little doubt that this throne motive had its origin in the Egyptian conception of placing the subject provinces beneath the legs of the throne, thus symbolizing imperial dominion.

The royal tomb, which seemed raised above earth on the steep mountain side and associated with the splendor of the monarch's life, must have impressed his subjects with a deep reverence. Set out, as it was, against the rugged background, it formed a magnificent mausoleum worthy of him who styled himself, not without authority, "the king of kings."

The paper will be published in full in a work which the writer is preparing on the Ancient Monuments of Persia.

5. Professor James A. Montgomery, of the University of Pennsylvania, A New Aramaic Inscription from Asia Minor.

The writer gave some preliminary notes on the rough copy of a five-lined Aramaic inscription recently found in southeastern Asia Minor, and offered a tentative translation. The inscription, which probably belongs to the period of the early Persian empire, celebrates the erection of the image of a god, along with a curse on any who should mutilate it.

Section C. Mediaeval and Renaissance.

1. Professor James Carter, of Lincoln University, The Cryptopendentive in Byzantine Architecture.

The Byzantine architecture as universally confessed reached its climax in the pendentive vaulting of Hagia Sophia at Constantinople. Strictly the term pendentive applies only to the spherical spandrels at the corners of a square structure, supporting a dome having a diameter equal to the shorter axis of the square. Incorrectly and commonly the term is applied to the transitional masonry connecting a domical vaulting with the supporting polygonal walls. In the interests of clearness it would seem that a fuller nomenclature were required. The term Protopendentive has come into common use to describe the vaulting which leads directly to a dome from a polygonal wall by corbeling the horizontal courses at the angles of the chamber. Such work is found in the time of the Roman Empire from the third century onward, notably in the Baths of Caracalla and the temple called Minerva Medica at Rome, in the tomb of Galla Placidia and the ancient Baptistry at Ravenna. The Church of St. Sergius in Constantinople, as examined by the writer and confirmed by Lethaby, Rivoira, Ebersolt, and Thiers, though apparently of protopendentive formation, is actually formed of alternate barrelvaulted and concave sections, and may well receive the title, Pseudopendentive. The dome of S. Vitale at Ravenna, as discovered by the writer in two recent visits, is constructed on arches in two tiers of eight each, the upper tier crowning the windows and the lower forming squinch arches at the angles, the latter concealed by plastering. Because of this skilful masking of the construction the term Cryptopendentive seems appropriate to buildings of this sort. If the terms herein suggested meet the approval of writers on the subject, descriptions of Byzantine architecture may gain in clearness.

2. Mr. George Harold Edgell, of Harvard University, Quattrocento Perugia as Revealed in the Backgrounds of Benedetto Bonfigli's Paintings.

The subject of the paper was suggested by a portion of the material which the author has been collecting for an extensive work on the development of the architectural background in Italian Renaissance painting, and its purpose was to show the importance of the architectural background as an aid to archaeology. It was found possible, by an examination of the backgrounds in Bonfigli's paintings at Perugia, to reconstruct with fair accuracy the exteriors of many important Perugian buildings now altered or destroyed. Beginning with Bonfigli's frescoes in the Capella dei Priori in the Palazzo Pubblico, one finds that the important buildings that exist to-day, such as the Palazzo Pubblico and the churches of Sant' Ercolano and San Domenico, are reproduced so accurately that one may trust the veracity of the painter when he reproduces buildings more extensively altered. In this way one may reconstruct the appearance of Perugia as it stood before the palaces of the Baglioni were razed to make way for the fortress of Paul III. One may also reconstruct the *Episcopio* as it stood in the quattrocento, the facades of San Pietro de' Cassinensi and San Francesco, now completely transformed, and other important Perugian buildings. Bonfigli, therefore, thanks to his love for his native town and to the very garrulity with which he has been reproached, is revealed as the ideal archaeologist's painter, faithfully reproducing scenes and buildings, commonplace enough in his day, but of absorbing interest in 0111'S

3. Professor Frank J. Mather, Jr., of Princeton University, Giotto's First Fresco in the Arena Chapel.

The writer associated the first subject in the Arena Chapel, which Adolfo Venturi has recently correctly interpreted as God despatching Gabriel to the Annunciation, with its literary source in the Bonaventuran treatise *Meditations on the Life of Christ*. The first chapter of this famous devotional work describes a debate in Heaven in which God, yielding to the entreaties of the angels for mankind, sends Gabriel to announce the Incarnation to Mary. Giotto has followed his text in its broader lines, depicting a celestial assize, but omitting some of the more scholastic and unpictorial details of his literary original.

4. Professor Charles R. Morey, of Princeton University, Mediaeval Paintings in the Freer Collection.

No abstract of this paper was received.

5. Professor Allan Marquand, of Princeton University, A Terra-Cotta Bust of François I.

In the collection of Mr. George Blumenthal there is a glazed terracotta bust of François I. It once stood over the door of the Château de Sansac in a medallion inscribed Franciscus Primus set in a rectangular frame which bore the date 1529. As Jerome della Robbia was in the employment of François I at this date, one naturally thinks that the bust may be an example of his workmanship. However, the construction of the bust, the quality of the glaze, the form of the frame, and the style of portraiture combine to show that this bust is French—a very early and rare example of French glazing of terra-cotta.

6. Mr. E. Baldwin Smith, of Princeton University, *Ivory Carvings from Provence*.

Although many ivories of the Early Christian Period have been proved of Eastern or Western workmanship, there is one group, the best examples of which are the Milan book covers, which is eclectic and difficult of localizing. Outside the fact that this group shows both Eastern and Western characteristics, it has a distinguishing feature in the Massacre of the Innocents. The seven examples of this massacre occurring on the ivories show the soldiers of Herod smashing the children to the ground, whereas the Syrian, Roman, and Egyptian examples have the now traditional sword type of massacre. To locate this group, with its mixed characteristics and its unique smashing massacre, there must be found some region where the art of the East and West met and mingled. Provence was the region through which poured the vast numbers of Syrian merchants who overran Gaul from the fourth to the seventh century, and it was in these Provencal cities that the traditions of Roman sarcophagi carvers were continued. These sarcophagi, moreover, reveal the same eclectic character as the ivories, and on a sarcophagus of St. Maximin occurs a similar Smashing Massacre. Furthermore, the cult of the First Martyrs existed from ancient times at Marseilles, where their relics were brought from the Orient by St. Cassien. Here, then, in Provence, about the cult of the First Martyrs, was a school of ivory carvers which reflected the mingled art of the East and West.

7. Professor Clarence Ward, of Rutgers College, Some Notes on Norman Vaulting.

The purpose of the paper was to show first that the Norman builders of the early twelfth century looked to Lombardy for a vaulting system, and did adopt the square vault covering two bays of the nave; second, that they were forced to change from the domed up type to one with practically level crowns in order to preserve the original arrangement of the timber roofs, which were either then in place or had once been standing; third, that they were determined to preserve the clerestory window in each bay, and, when necessary, either subdivided the window severies of the vault, thus creating the six-part type, or even moved the window out of centre in order to use the simpler four-part form; fourth. that they always added an intermediate transverse arch with a wall above beneath such four-part vaults, giving them a pseudosexpartite character, the reason for the employment of such arches probably being, first, because they tied together the clerestory walls and had already been used in one or more Norman churches with wooden roofs; second, because they were necessarily used in the six-part vault as developed in Saint Etienne at Caen, which was one of the most important churches of the school, and may, therefore, have been copied in this respect; and third, because such an arch possessed the structural advantages of reducing the amount of temporary centring required, of bracing the keystone of the diagonals, which were generally of flattened section, and, finally, of carrying a certain amount of the weight of the vaults to the intermediate piers.

The paper further attempted to show that the pseudo-sexpartite vault was not so much a prototype as a contemporary of the true form, and admirably suited to the architecture of inert masses in which it is found.

Section D. Prehistoric and American.

- 1. Dr. Ales Hrdlicka, of the Smithsonian Institution, Washington, The Archaeological and Other Remains in Eastern Asia of a Race Physically allied to that of the North American Indian. No abstract of this paper was received.
- 2. Mr. A. V. Kidder, of Harvard University, Some Undescribed Ruins of the Historic Period from the Upper San Juan, New Mexico.

The paper dealt with ruins scattered over a considerable area in Gobernador, Ceresal, and Largo Cañons, tributaries of the upper

San Juan River in Northern New Mexico. The groups are built on easily defensible mesa-spurs, and where not entirely protected by their natural position are guarded by flanking walls. They are recognized as post-Columbian by the marks of iron axes on the roof beams; by certain structural peculiarities not found in prehistoric ruins, such as the use of hewn planks, and the so-called "hoodchimney"; and also by the discovery of cow and sheep bones in the rubbish heaps. Closely associated with the ruins are the remains of structures identical with modern Navajo hogáns. The pottery is unlike any ancient type, but agrees in shape, texture, and probably in decoration with older historic wares. It is probable that these ruins were occupied at or shortly after the time of the Pueblo Revolt of 1680, and it is suggested that they may have been the work of the Jeurez, which tribe is known to have fled north and to have lived for a period of years among the Navajos. The group is interesting because it lies well outside the previously known range of the Pueblos, and an investigation of its pottery should throw considerable light on the little-known wares of the Revolt Period.

3. Dr. Charles Warren Currier, of Washington, D.C., The City of Cajamarquilla, Peru.

Origin of the first American; division between the savage and semi-civilized inhabitants of the New World: immense work remains to be done in American, and especially Peruvian, archaeology; difficulties to be overcome; Inca and pre-Inca civilizations in Peru pre-Inca civilization divided into the megalithic of the mountains and the adobe of the coast; ruins of Tiahuanaco; decadence of coast civilization; conquests of Tupac-Yupanqui; ruins of the Rimac valley comparatively unknown; three principal groups: Huadca, Armatambo, and Cajamarquilla; Cajamarquilla visited by Squier and Middendorf; my excursion to Cajamarquilla; general description; extent of the ruins; elevation of the soil; description of the houses; the ruins described by Squier; pits of varying depth very numerous; burial grounds; human remains; the pits long since opened and despoiled of possible objects of value; absence of inscriptions and works of art; inference as to antiquity from the accumulation of soil; to what civilization does Cajamarquilla belong? origin of the coast civilization; change of climate on the coast; character of the adobe buildings; first appearance of the Incas; their conquests; journey of Miguel de Estete from Cajamarca to Pachacamac; Estete's opinion regarding the antiquity of Pachacamac; density of the coast population: its disappearance.

4. Dr. Edgar L. Hewett, of the School of American Archaeology, Santa Fé, Historic Architecture in Santa Fé.

No abstract of this paper was received.

SATURDAY, DECEMBER 28. 2.30 P.M.

Joint Session of the Institute and the Philological Association. The following archaeological papers were presented:

1. Professor David M. Robinson, of Johns Hopkins University, Recently Discovered Inscriptions from Sardes.

The inscriptions will be published in later numbers of the Journal.

2. Dr. Allan C. Johnson, of Princeton University, A New Athenian Treasure List.

This paper will be published in full in a later number of the Journal.

3. Miss Edith H. Hall, of the University of Pennsylvania Museum, Excavations at Vrokastro, Crete, 1912.

The writer described her excavations carried on at Vrokastro, Crete, in May and June, 1912, for the University of Pennsylvania Museum. The object of this second campaign was twofold: to explore further the geometric settlement on the summit of Vrokastro, and to locate the tombs belonging to this settlement. A second stretch of housewalls was uncovered on the north face of the mountain, which proved to belong to the same sort of poorly constructed dwellings as those excavated two years ago on the summit. They were, moreover, singularly empty and yielded only a few complete vases, some of the transitional, others of the fully developed Dipylon style, and a group of interesting knives and fibulae. The tombs far surpassed the houses in importance. Six tholoi were found, one containing a handsome set of vases of the stage transitional between the Mycenaean and geometric styles of vase-painting. They presented a large variety of shapes and many new designs. The same tomb yielded imported Egyptian faience seals of the XX-XXII dynasties, and the pieces of a bronze tripod similar to one in the British Museum from Enkomi, Cyprus. Both inhumation and cremation were practiced in these tholoi; sometimes the two methods of interment were noted in the same tomb. Iron was chiefly used for weapons, bronze for the smaller objects. In addition to tholoi a type of tomb new to this period was discovered, viz. bone-enclosures like those of the Middle Minoan period found at Palaiokastro. Here cremation was

practiced, and the pottery was largely of the fully developed Dipylon type. A full report of these excavations will shortly be published in the Anthropological Publications of the University of Pennsylvania Museum.

4. Professor Lewis B. Paton, of Hartford Theological Seminary, Recent German Excavations at Baalbek.

No abstract of this paper was received.

SUNDAY, DECEMBER 29. 8 P.M.

Dr. John P. Peters, of New York, With Pick and Spade in Palestine.

No abstract of this paper was received.

Monday, December 30. 9.30 a.m.

1. Dr. Henry H. Armstrong, of Oberlin College, Studies at Setia.

The writer gave a brief summary of the results of topographical studies made at and near Sezze, ancient Setia, during the summer of 1912. The course of the ancient road that led from the Via Appia to Setia was plotted, from the point where it leaves the modern highway at Acquaviva, for 1000 metres up the hill; extensive remains of its retaining wall and a well-preserved piece of the pavement were found. The road dates from after 312 B.C., the pavement probably from the end of the republic. At Sezze itself the entire circuit of the ancient city wall was determined from the numerous fragments still existing. Two types of masonry were employed in its construction, a carefully fitted polygonal masonry with smoothed face, and a quasi-ashlar, rusticated masonry. Both types seem to date from after the foundation of the Roman colony in 382 B.C. Other terrace walls of quasi-ashlar masonry, of unknown use, within and without the city were discussed. Various inscriptions and some architectural fragments indicate the presence of several temples and a basilica, but the location of none of them could be fixed. Owing to the season, no attempt was made to study the remains of the ancient road and numerous villas in the territory of Setia bordering on the Pontine Marshes and in the marshes themselves.

2. Miss Hetty Goldman, of the American School, Athens, Excavations at Halae.

No abstract of this paper was received.

3. Dr. T. Leslie Shear, of Columbia University, Loryma, Castle and City: Investigations of 1912.

No abstract of this paper was received.

4. Professor W. W. Baker, of Haverford College, A Vase Fragment from Vari.

This paper will be published in full in a later number of the Journal.

5. Professor Walter Dennison, of Swarthmore College, A Byzantine Gold Treasure from Egypt Recently Acquired by Mr. J. Pierpont Morgan.

The writer described a collection of gold objects of Byzantine workmanship similar in type and style of decoration to those in the Freer collection described briefly in A.J.A., XIV, 1910, pp. 79-81. There are ten pieces in the Morgan collection, a pectoral, three necklaces, a pair of earrings, and two pairs of bracelets. The pectoral is decorated with a central medallion, bearing on the obverse the portrait of a fifth-century emperor and surrounded by a cluster of solidi of the emperors, Theodorus, Anthemius, and Justinian; the pectoral, therefore, is as late at least as the middle of the sixth century. One necklace is ornamented with medallion pendants consisting of aurei of Alexander Severus set in a gold frame; another necklace has as a pendant an eight-sided, unpolished emerald; the third necklace has fifteen pendants of alternating groups of four sapphires and four pearls. Each of the earrings has three braided chains pendant, terminating in pearls. One of the pairs of bracelets is profusely ornamented with pearls, sapphires, and emeralds.

A full publication will be made later.

6. Professor Paul Baur, of Yale University, C. W. Lunsingh Scheurleer's Collection of Antiquities in the Hague.

No abstract of this paper was received.

7. Dr. Arthur Stoddard Cooley, of Lehigh University, Archaeological Notes.

A brief description illustrated with slides from photographs of the following: 1. The restoration of the Propylaea at Athens, showing a view from the Nike bastion, the marble tiles on a portion of the ceiling which has been rebuilt, and an unusual view of the Nike Temple from this point. 2. The excavation on the Pnyx behind (west of) the great retaining wall, revealing an earlier "stepwall" with buttresses; objection to an assigned late date for both walls. 3. Changes in the Dipylon cemetery, with restorations of earlier aspect of the monuments in situ and excavations behind the Demetria and Pamphile stele. 4. The altar of Poseidon (?) excavated in 1911 near the town of Corfu, and a comparison of its triglyph decoration with that of the Agora Fountain at Corinth. 5. Views of the little Doric temple of the Nymphs excavated on the east coast of Corfu in the spring of 1912. 6. Paestum: the ancient street west of the temples, and the semi-circular steps at the east end of the "Basilica." 7. Two views of tombs outside the Vesuvius Gate of Pompeii,

MONDAY, DECEMBER 30. 8 P.M.

1. Professor Howard Crosby Butler, of Princeton University, American Excavations at Sardes, 1912.

See A.J.A. XVI, 1912, pp. 465-479.

- 2. Dr. Edgar L. Hewett, of the School of American Archaeology, Santa Fé, American Excavations at Quirigua, 1912.

 No abstract of this paper was received.
- 3. Professor Francis W. Kelsey, of the University of Michigan, The Province and Scope of Archaeology.

No abstract of this paper was received.

ARCHAEOLOGICAL NEWS

NOTES ON RECENT EXCAVATIONS AND DISCOVERIES; OTHER NEWS

WILLIAM N. BATES, Editor

220, St. Mark's Square, Philadelphia, Pa.

GENERAL AND MISCELLANEOUS

BULGARIA. - Recent Archaeological Work. - Notes on some recent discoveries in Bulgaria and on recent publications of earlier work, by B. Filow, are given in Arch. Anz. 1912, cols. 558-576 (17 figs.). In the church of S. Sophia, in Sofia, the two mosaic pavements found, one above the other, about $\frac{1}{5}$ m. apart, are now dated by coins in the débris filling the space between them, as of the beginning of the fourth and fifth centuries respectively. With the earlier and finer one, which belonged to a one-naved church about 10 m. long, the picture mosaic discovered in the apse of the church in 1896 is to be classed. The second floor, with geometric patterns, is that of a somewhat larger church. Both were much injured in antiquity when the present church was built. The graves and tombs found in and about the church are not earlier than the fourth century. Late Roman mosaics, similar to the upper one at Sofia, were found at Stara Zagora, at Saparevska Bania (ancient Germania) and at Kostendil (Pautalia). The last, with a vase and a large snake in addition to the geometric designs, may show the site of the local worship of Asclepius. In a village near Kostendil the site of an extensive sanctuary of Zeus and Hera has been identified by the statues of the divinities, of good Roman work, and the statuettes, votive reliefs, and other offerings. A smaller building, two-celled like the first, and some granite capitals and a column from a third belong to the same sanctuary, which was destroyed by violence. The coins are of about 150-300 A.D. The prehistoric sites include a palaeolithic settlement near Tirnova, the first found in Bulgaria;

¹The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor Bates, Editor-in-charge, assisted by Professor C. N. Brown, Miss Mary H. Buckingham, Mr. L. D. Caskey, Professor Harold R. Hastings, Professor Elmer T. Merrill, Professor Frank G. Moore, Professor Charles R. Morey, Dr. James M. Paton, Professor Lewis B. Paton, Professor A. S. Pease, Professor S. B. Platner, Professor John C. Rolfe, Dr. N. P. Vlachos, Professor A. L. Wheeler, and the Editors, especially Professor Marquand.

No attempt is made to include in this number of the JOURNAL material published after December 31, 1912.

For an explanation of the abbreviations, see pp. 146-147.

a hill near Shumen, from which comes pottery, not yet adequately published, and very interesting figurines of clay and bone; and a line of settlements along the Danube, some of which were reoccupied in Roman times. The pottery is of some interest, especially pieces from Kutovo and Vidbol. A Greek slab grave near Misivri (Mesambria) on the coast contained as ossuary a bronze hydria of the fourth century B.C., with a handle relief of Boreas and Orithyia. Other objects from various sites, that are now in the National Museum or in private possession, include a relief of the Thracian god Τιλθάζης, thought to resemble the Roman Silvanus; an altar to I. O. M. TAMITENUS; one end of a sarcophagus cover which has the Thracian Horseman with symbolic accompaniments and two Heracles scenes, carved in great detail; other reliefs of the Horseman, one with Asclepius and Hygieia and one inscribed Γίτις δώρον; a marble female portrait head of the third century A.D., remarkable for the round shape of the skull and the close-lying hair; a bronze statuette of a barbarian warrior or gladiator, made with movable head; a bronze weight in the form of a bust filled with lead; several gold and silver rings; a dozen late Roman plain silver bowls with pointed bases; two toy horses on wheels, of clay; silver and bronze coins of the Roman period, gold and copper Byzantine coins, and Bulgarian silver groschen of the Czar Ivan Alexander, 1331-1365.

KIRK KILISSE.—A Tholos Tomb.—In B.S.A. XVII, session of 1910-11, pp. 76-79 (pl.; 2 figs.), F. W. Hasluck describes a tholos tomb near Kirk Kilisse, some thirty-five miles east of Adrianople. This was one of three. It was opened in 1891 and its contents are in the museum at Constantinople, Nos. 163, 164, 175, 195, 267, 273, and 310 in the Bronze Room. All are of silver, or bronze, or bronze-gilt, and (except a thin silver double axe) evidently of Hellenistic date. The circular tholos is built of horizontal courses of large, cut stones, elaborately dressed within, but left rough outside, where they were covered with earth. The moulding above the door cannot, according to Mr. Dinsmoor, be earlier than the fourth century B.C. The tomb represents a late survival of a primitive technique.

NECROLOGY.—E. W. Moes.—E. W. Moes, director of the Print-Cabinet of Amsterdam, died on the 30th of October, 1912. Born September 5, 1864, he was appointed in 1886 assistant archivist at Rotterdam, then assistant librarian of the University of Amsterdam in 1890. In 1898 he became assistant director of the Print-Cabinet, and in 1903, director. Among other works, he was the author of *Iconografia Batava*, of an important book on Frans Hals (1909), and of many articles in the Netherlandish reviews. He was regarded as an authority on the Dutch engraving of the seventeenth century, on which subject he composed a monumental work, which has been continued by C. P. Burger. (Chron. Arts, 1912, p. 283.)

George Niemann. — The architect George Niemann died at Vienna, February 19, 1912, at the age of 72 years. He was a friend of Benndorf, and studied with him the monuments of Samothrace, Lycia and Caria, Gjölbaschi, Adam-Klissi, and Ephesus. (S. R., R. Arch. XIX, 1912, p. 431.)

SERVIA. — Recent Discoveries. — A sketch of excavations and discoveries in Servia, in the years 1907-1911, by N. Vulić, is given in Arch.

Anz. 1912, cols. 546-558 (8 figs.). Prehistoric sites at Žuto Brdo (Yellow Hill) and Vinča on the Danube and Gradac in southeastern Servia yielded flint, obsidian and bone implements, bronzes, terra-cotta idols and statuettes, chiefly female, and animal figures, marble figurines, pottery, and single finds in iron, glass, etc., most of which have gone to the National Museum at Belgrade. The pottery is mostly hand-shaped, sometimes with red or bluish slip, and simple decorations of incised and sometimes color-filled outline or stamped patterns, or with black glaze paint on a whitish ground. At Vinča the remains of houses were found in several overlying strata. They are square, with wattle walls, and have hearth and oven inside. They are set down without any regard to streets. Two skeletons were found in graves, one in a crouching position. A large Roman camp (200 by 200 m.) has been excavated at Stojnik, south of Belgrade. It has the main entrance on the south side, toward the citizen settlement, and contains one long building (46 by 16 m.) with a row of piers down the middle, and a complex of apartments, one of which has an apse at the west end, a well in the southeast corner, and a row of heating arrangements along the axis. The small finds include a number of coins, mostly of the third and fourth centuries, with one Greek coin of Galerius Antoninus, the son of Marcus.

THRACE. — Greek and Latin Inscriptions. — In R. Arch. XX, 1912, pp. 255–276 (6 figs.), Georges Seure gives the text of twenty-seven inscriptions from Thrace. Two are Latin, the rest Greek. Eighteen are funerary, one is from a vase, the rest are fragmentary or illegible. This is the fourth article in the series (cf. A.J.A. XVI, 1912, pp. 113 and 435).

EGYPT

EXCAVATIONS OF THE EGYPTIAN RESEARCH STUDENTS' ASSOCIATION.—The Egyptian Research Students' Association, during the winter of 1911–12, carried on excavations at the Roman fort at Shurafa, identified with Scenas Mandras. At Kafr Ammar, 50 km. south of Cairo, a cemetery from the prehistoric period to the time of the pyramid builders was found, and pieces of cloth, bits of wooden sarcophagi, bedsteads, etc., were brought to light. Three hundred alabaster vases and dishes and numerous pots of terra-cotta were found, including one large jar with part of a zebra upon it. A seal of Narmer-Mena was also discovered. At Heliopolis traces of a second obelisk were found; and at Memphis an alabaster sphinx weighing eighty tons. (Kunstchr., June 28, 1912, col. 503.)

EXCAVATIONS OF THE METROPOLITAN MUSEUM.—In B. Metr. Mus. VII, 1912, pp. 184–190, H. E. W(INLOCK) reports upon the recent work of the Metropolitan Museum of New York in Egypt. Little was done at the temple of Hibis at Kharga, and no attempt will be made to clear the temenos until the restorations now in progress are completed. Rows of sphinxes were discovered flanking the approach from the east; also new pieces of the portico of Nectanebo. On the new concessions opposite Luxor, near the modern villages of Gurneh and El Ba'arat, excavations were carried on, especially at the palace of Amenhotep III, south of the temple of Medinet Habu. This building was under construction from about 1400 to 1375 B.C., and consisted of a series of rambling one-story

structures erected from time to time. There were dwellings for the use of officials and houses and shops for workmen. The whole aggregate of buildings was enclosed by a brick wall, with a gateway to the west and probably others to the north and east. The harem was separated from the rest of the palace by a wall in which was a single door. One passed through this into a vestibule which opened into a pillared antechamber. Passages led to the sides, and a stairway to the roof. The royal diningroom with apartments for the king was in this part of the palace, and eight suites for the ladies of the harem. The sun-dried bricks of which the palace was built bear the name of the king, in one place the name



FIGURE 1.—CEILING IN PALACE OF AMENHOTEP III. RESTORED.

of the palace, Neb-maat-re, "house of rejoicing," and in the latest part the names of the king and his queen Tiy. The floors were of brick; the roof was supported by palm logs. Floors, walls, and ceilings were covered with plaster made of mud and chopped straw, which, in the principal rooms, was covered with frescoes. In one room the ceiling design consisted of spirals surrounding cows' heads which have rosettes between the horns; in another, pigeons and ducks (Fig. 1). Many small objects were unearthed, some of them in the process of manufacture. At the north end of the hill of Sheik abd el Gurneh the tomb of an official of the eleventh dynasty with remarkably good sculptures was cleared. In the seventh century it was occupied by an anchorite, Apa Epiphanios, who founded a small monastery there. A considerable number of papyri of this date were found, as well as a codex in which a hymn is given in Greek and Coptic.

ABYDOS.—The Recent Excavations.—A year ago the excavations of the Egypt Exploration Fund at Abydos were reported as centring about a sloping passage lying in an axis passing through the subterranean chamber in the temenos of Seti's temple, the temple itself, and so out to the desert (Fig. 2). The past season has brought to light the buried remains of a colony of predynastic Egyptians. Beneath the wind-swept sand, a few inches deep, is a thick, dark stratum-sand, mingled with burnt wood, potsherds, animal bones, and decaying vegetable matter. This rubbish, accumulated until decency or circumstances compelled a removal, yielded objects of interest. Two hearths, each about 20 feet in diameter, were buried in ashes, from which came arrow-heads, borers, scrapers, knives, and saws. A cylindrical seal shows four animal forms, one of them possibly an elephant. A small copper chisel was found. Grain was ground on flat slabs of stone. The abundance of bones attests a meat diet, the bones cracked to extract the marrow. Traces of buildings

have disappeared; it was a colony of the common people. In one corner was a primitive furnace, 23 jars, arranged 12 and 11, packed close together

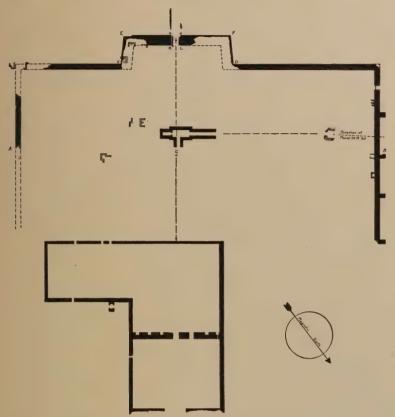


FIGURE 2. - ABYDOS. PLAN OF THE OSIREION.

and bolstered up by vertical fire-bricks. Masses of charred logs suggest a slow-heat furnace for keeping things warm a long time. (W. N. STEARNS.)

MEIR.—Recent Discoveries.—A. M. Blackman has excavated at Meir in Upper Egypt six decorated tombs. The earliest belonged to the sixth dynasty and the others to the Middle Kingdom. The latter formed a group by themselves and belonged to five successive generations of princes. Complete records were also made of two tomb-chapels, the earliest and latest of the Middle Kingdom group. (Nation, November 28, 1912, p. 519.)

MEMPHIS.—Third Dynasty Tombs.—During the past two winters J. E. Quibell has excavated in a small part of the cemetery at Memphis more than four hundred tombs. These are uniform in type, and covering but a small period of time, mostly of the second and third

dynasties. The excavations showed that the burial chambers were in the form of a house, complete in every respect, even to the bathroom, indicating that the provision which it was thought necessary to make for the dead was more thoughtful and complete in this early age than in the later epochs. In all these underground chambers the antiquities found were somewhat disappointing. This was due to the fact that the tombs had been opened by ancient robbers. However, a great number of bowls and dishes were obtained, also ewers and copper basins, and fragments from a wooden draughts-board. The seals on the vases were in three tombs inscribed with kings' names, thereby giving assured dates for the cemetery. The walls of the underground passages in these tombs were covered with paintings. (Nation, November 28, 1912, p. 519.)

MEROE.—Recent Excavations.—In Ann. Arch. Anthr. V. 1912. pp. 73-83 (3 pls.; 3 plans), J. Garstang summarizes the results of the last expedition to Meroe. In the northeastern part of the Royal City a postern gate was found in the north wall, and what was probably a stairway leading to the ramparts. In this part of the city were remains of Roman baths, with a stone bathtub of modern shape, and heating apparatus. To the northwest a small prostyle temple of irregular shape was found, and to the southwest the royal baths. These included a frigidarium and a tepidarium with ornamental seats. The swimming bath was two metres deep, and adorned with glazed tiles and sculptured decoration between the water spouts. There were frescoes above. Several statues were found, including a reclining figure like the Vatican Nile. The original building was erected in the third or second century B.C. and reconstructed a century later. The sculptures are all of local execution. All the buildings in the Royal City fall into three periods. (1) 700 to 300 B.C., when the city was established, the great stone buildings erected, and Egyptian influence prevailed. (2) 300 B.C. to 100 A.D., period of Greek influence. Objects of pure Meroitic origin belong to this time. (3) 200 to 700 A.D., Roman influence. City destroyed about 700.

MINYEH. - Recent Excavations. - In C. R. Acad. Insc. 1912. pp. 484-490, R. Neill reports upon his excavations at two sites near Minyeh during the winter of 1911-12. At Tuneh considerable work was done in the cemetery of Hermopolis, which dates from the eighteenth to the twentieth dynasties. The tombs were rectangular pits hollowed out in the rock, and originally had superstructures. the bottom of the pits were usually three rooms, one at the right, one at the left, and one between. The usual funeral furniture of the period was found in abundance, and great quantities of figurines. As many as four hundred were found in a single tomb. Few historical inscriptions were discovered, and these came chiefly from a demolished temple of Amenophis IV. A very fine sarcophagus of black granite was. taken to Paris. At Zâwiyet el-Mêtîn a cemetery of the Old Empire was discovered beneath the remains of a Roman village. A small stepped pyramid of the second or third dynasty was partly cleared. Some sculptured blocks of an eighteenth dynasty building were also found.

BABYLONIA AND ASSYRIA

ASSHUR.—The German Excavations.—In S. S. Times, December 28, 1912, pp. 829 f., E. J. Banks describes a visit to Asshur, the original capital of the Assyrian Empire. At the present moment the workmen are employed in excavating the ancient graves. The cemetery is yielding valuable results. The tombs are large monuments of well-dressed stone worthy of adorning any American cemetery. In them only the kings or nobles could have been buried. They are found not without the city walls, as one might expect, but within the city, where they might be protected from the enemy. They are rectangular in shape, enclosing a chamber about eight feet long and half as wide. At one end, but raised from the ground, is a door of stone which still turns in its sockets. The walls are about ten feet high, and roofed above by a curving arch.

SYRIA AND PALESTINE

'AIN SHEMS, - The Recent Excavations. - In the Annual for 1911 of the Pal. Ex. Fund, pp. 41-94 (8 pls.; 28 figs.), D. MACKENZIE reports the results of the excavations at 'Ain Shems during the year 1911; and in Pal. Ex. Fund, October, 1912, pp. 171-178, he describes the further progress of the work during the summer of 1912. The main results are as follows: first. there is the earliest period, when a Canaanite population in contact with some indigenous race founded the earliest settlement, represented by the deposits next the rock, which have a depth of from four to five feet. Fairly high up in this stratum the Semitic (Canaanite) deposits give distinctive indications of contact with foreign countries, including Egypt, Cyprus, and the islands of the Aegean archipelago. The Egyptian relations show a strong culminating domination, corresponding to the period of the eighteenth dynasty. The second stratum at Beth-Shemesh, which is from five to six feet in thickness, is that which contained the painted Philistine pottery. The culmination of this period of Philistine influence may be sought in the era about 1200-1100 B.C. In the third stratum, i.e. that nearest to the present surface of the ground, the Canaanite types of pottery maintain their old prominence, but there is no more of the painted Philistine pottery and the Philistine influence seems to be conspicuous by its absence. It may fairly be asumed that the third and last period in the history of Beth-Shemesh was one of Israelite influence and domination and that it extended from the eleventh to the eighth or seventh century B.C. There is every reason to think that it was the people of Israel who were the victors in the great siege represented by the burnt débris of the sacred city of Beth-Shemesh, as we see it encumbering the south gate of the city. The last era of the city would thus coincide with the period of the kings of Judah, and its final extinction may have fallen in the time of the Assyrian invasions about the seventh century B.C.

AMMĀN. — The Megalithic Monuments — In the Annual for 1911 of the Pal. Ex. Fund, pp. 1-40 (6 pls.; 11 figs.), D. Mackenzie reports the results of his excavations of the megalithic monuments at ancient Rabbath Ammon. Tombs of simple dolmen type may be taken as representing the first and earliest phase of megalithic civilization at Rabat Ammon. The second period in the megalithic civilization is not represented at Ammān

by monuments discernible above ground. But later investigations may tend to show that it has ample illustration at other sites. Its characteristic mark is the elongated type of dolmenic tomb with orthostatic slabs forming the cella, like that at Kosseir. The third or culminating period in the megalithic civilization is represented at Amman by a whole series of monuments. Its most characteristic marks are the dolmenic tomb and round towers with splayed masonry of Ruim-el-Melfüf.

BEIRUT. — A Latin Inscription. — In C. R. Acad. Insc. 1912, pp. 248-256 (fig.), L. JALABERT publishes a Latin inscription recently found at Beirut dating from the second century A.D. It is a dedication in honor of C. Valerius Rufus and records the fact that he was sent with a body of men to Cyprus, evidently to suppress the revolt of the Jews in 116-117.

OPHEL. — Recent English Excavations. — In R. Bibl. IX, 1912, pp. 424-453, 544-574 (7 pls.; 9 figs.), H. VINCENT describes the results of the recent English excavations in the Siloam Tunnel and the Hill of Ophel at Jerusalem in continuation of the report given in previous numbers of the

same journal.

SAKJE GEUZI. — The Excavations of 1911. — In Ann. Arch. Anthr. V, 1912, pp. 63-72 (3 pls.), J. Garstang gives some additional details of his excavations at Sakje Geuzi in 1911 (see A.J.A. XVI, pp. 439 f.). The large mound, called Songrus Eyuk, was almost entirely artificial, although 160 feet high, about 600 feet long, and 500 feet wide. On the highest part was an almost complete building, of the first or second century B.C. made of sun-dried bricks upon a stone foundation. There was no permanent occupation of the site after Seleucid times. Hittite remains were found at a depth of twenty feet and were still being unearthed at a depth of forty feet. The lowest buildings were contemporary with the eighteenth dynasty in Egypt, but there are outer defensive walls which are much earlier. These cannot be definitely dated. But remains of two other periods belong to the eighteenth and twenty-sixth Egyptian dynasties. A deposit of Syro-Hittite vases was discovered between the main walls of the eighteenth dynasty. The smaller mound of Jobba Eyuk, where the sculptured gateway was found in 1898, was completely excavated. The main wall enclosed a quadrangular space about 130 m. by 190 m. There was but one gateway, which had once been adorned with sculptures, and fragments of a lion hunt like the one in Berlin, came to light. Inside the outer portico of the palace on the right was a stairway with sculptured decorations consisting of rosettes and other conventional patterns. Two doors led from the portico into other rooms. The one in the middle was adorned with sculptured slabs. A third door at the left led to a court paved with cobble-stones from which a stairway led to the main wall. The buildings and offices of the palace seem to have been arranged in a double row inside the main walls. Potsherds were found in an unbroken series from neolithic times to the time of the palace; that is, to about the ninth century B.C.

ASIA MINOR

ANTIOCH IN PISIDIA. - Further Discoveries in the Sanctuary of Men. — In Athen. August 10, 1912, p. 149, W. M. RAMSAY reports the discovery in the sanctuary of Men at Pisidian Antioch (see A.J.A. XVI,

p. 117) of an important inscription on the base of a statue of a certain C. Caristanius Fronto Cassianus, the praefect of P. Septimius Quirinius when he was Triumvir of Antioch. It proves what Mommsen and others argued that Quirinius was twice governor, once in 6-7 A.D. and once earlier, and that his name should be restored in the Tibur inscription. According to Luke he was governor of Syria when Jesus was born. The war against the Homonades was fought in 8 B.C. Ibid. August 31, 1912, p. 226, he shows that the hieron was an irregular quadrilateral surrounded by a wall 19 feet thick on the southwest and 5 feet thick on the other side. There were two main entrances, on the southwest and southeast sides. The sanctuary was completely wrecked in the fifth century, probably by Christians. No coins later than the fourth century were found. A fine statue of a certain Cornelia Antonia was unearthed. It seems to have been made early in the first century A.D. and later altered. It is almost perfect. Ibid. September 7, 1912, p. 252, he shows that the architectural character of the central sanctuary of Men is obscure, but it was probably a small temple. The great cistern, which is later than the enclosing wall, was full of late inscriptions of little value. There was an anti-Christian movement in Antioch under Maximian II and Maximin. Associated with Men was a goddess who is referred to in Greek as Demeter. A general account of the excavations is published by M. M. HARDIE in J.H.S. XXXII, 1912, pp. 111-150 (18 figs.); and additional details by Sir W. M. RAMSAY, ibid. pp. 151-170, and by F. W. HASLUCK, ibid. p. 390.

CNIDUS.—**Bronze and Iron.**—In 1911 a deposit of eleven lance-heads (six of which were of bronze and five of iron, all of the same type), a small iron knife, and a whetstone was found at Cnidus. The coexistence of the two metals, as at Hallstatt and in the Homeric civilization, was emphasized by W. Ridgeway at the meeting of the British Association at Dundee in 1912. (S. R., R. Arch. XX, 1912, p. 296.)

PAMPHYLIA. — Notes and Inscriptions. — In B.S.A. XVII, session of 1910-11, pp. 215-249 (2 figs.), H. A. ORMEROD and E. S. G. ROBINSON contribute notes on the topography of Pamphylia (Bazar-ghediyi örenlik and neighborhood, Indjik, and the coast near Idalia) and the text (with commentary) of thirty-nine inscriptions, one of which is in Latin, the rest in Greek. Most of them are from sarcophagi. One conveys a life right in certain property to a man named Harmax, after whose death it is to pass to Apollo, the income to be devoted to sacrifices and an annual feast. Another is of similar import. The Latin inscription is apparently a duplicate of one found at Euyukkeui and published by Mr. Woodward — a dedication to Diocletian, Maximianus, and the two Caesares (see under Pisidia). The article closes with a list of proper names. In J.H.S. XXXII, 1912, pp. 270-276, H. A. Ormerod publishes a stone inscribed on four faces with the names of the different throws with astragali and with quatrains giving the fortunes which they portend, found about six hours to the northeast of Adalia in Pamphylia. It was badly damaged by the natives before it could be fully copied, but 29 quatrains are more or less preserved, and much might still be done to complete the readings.

PERGAMON. — Discoveries in 1911. — In giving an account of the autumn campaign of 1911 at Pergamon, at the February (1912) meeting of the Berlin Archaeological Society, W. Doerpfeld described the sanctuary of

Demeter and Core, built by the brothers Philetaerus and Eumenes, and the newly discovered temple of Hera, built by Attalus II, with cella of trachyte and marble pronaos, apparently the earliest marble building in the city. This would indicate that marble was not used there before the time of Attalus, and that the Great Altar belongs to him and not to Eumenes II. Doerpfeld defended his former interpretations of Strabo as to the geography of the coast of this region, assigning various names to places with which they are not usually identified. In this, A. Conze agreed with him only partially. The sculptures and inscriptions were described by A. Ippel. The broken male statue found in the temple of Hera, formerly called Zeus, is rather a portrait cult statue of Attalus II. (Arch. Anz. 1912, cols. 71–75.)

PISIDIA. — Inscriptions. — În B.S.A. XVII, session of 1910-11, pp. 205-214, ARTHUR M. WOODWARD gives the text of eleven inscriptions from western Pisidia and notes on others previously published. Four are dedications to emperors: Antoninus Pius, Caracalla, Diocletian, and Maximianus (with the Caesares Constantius and Maximianus; this is for the most part in Latin), and (apparently, as the inscription is nearly illegible) Constantine. Two inscriptions are agonistic, the others dedicatory.

GREECE

ARCHAEOLOGY IN GREECE, 1911-1912.—A survey of the archaeological work in Greek lands for the year 1911-12, derived largely from the unpublished notes of the excavators, is given by F. W. HASLUCK in J.H.S. XXXII, 1912, pp. 385-390. He attributes the most striking results of the year to the American excavations at Sardis, although very important and significant work has been accomplished also in Boeotia, Thessaly, Crete, and elsewhere. The occasional juxtaposition of inhumation and cremation suggests questions that are not yet answered. A somewhat fuller résumé, including Corfu, Delos, Melos, and Thasos, also Asia Minor and Crete, by G. KARO, is published in Arch. Anz. 1912, cols. 235-270.

ANAVYSOS. — Recent Excavations. — In $\Pi\rho\alpha\kappa\tau\iota\kappa\dot{\alpha}$ for 1911, pp. 110–131 (15 figs.), P. Kastriotes and A. Philadelpheus describe their excavations at Anavysos (the ancient Anaphlystus) during August and September, 1911. Many tombs were opened and more than one hundred vases of geometric style found. In the same tombs with them were a number of hand-made, monochrome vases with incised decoration, similar to those found at Troy and on other prehistoric sites. No trace of Mycenaean ware was found, although Anaphlystus was a very old deme. The writers argue as a result of their excavations that the geometric style of vase painting must go back to Mycenaean times.

ARGOS. — Discoveries of the Dutch Expedition. — Since 1902 W. Vollgraff of the University of Groningen has been carrying on excavations at Argos. He began work on the low hill known as the shield and in successive annual campaigns laid bare an important prehistoric settlement of about 2000 B.C. with heavy fortifications; then at the foot of the hill, a number of large Mycenaean rock-tombs of the fifteenth and fourteenth centuries B.C., the contents of which are now in the National Museum at Athens. Professor Vollgraff then succeeded, by experimental trench-cutting, in getting a clear outline of the topography of ancient Argos, discovering among other

objects of special interest the stadium, the gymnasium, the sanctuaries of Apollo Pythius and Athena Oxyderces, a round temple of unknown age and dedication, the Roman aqueduct, the Nymphaeum, and a large stone terrace, which in all probability is the kriterion, or ancient place of judgment, mentioned by Pausanias. The chief interest, however, lay in identifying the agora, an immense rectangular area of some 3000 square metres, which was partly roofed in and was surrounded on all sides by walls, temples, and colonnades. On the north side, which is above 109 metres in length, the colonnade has been unearthed almost intact, the columns still standing to a height of several metres, while most of the capitals are lying about near by. This colonnade apparently dates back to the fourth century B.C. An agora belonging to classical times of these dimensions and such arrangement is thus far unique in Greece or Asia Minor. Pausanias describes the Argive agora quite elaborately, and names no fewer than seventeen temples abutting on it. One of these temples has already been unearthed by Professor Vollgraff; it is 32 m. long by 15½ m. broad, and was built of fine white limestone. The substructure and numerous fragments of the superstructure are preserved, as well as the shattered statue of the goddess, whose name may, perhaps, be determined when the pieces are put together. Excavations are to be continued, and one may confidently hope for even more important discoveries. (Nation, October 3, 1912, pp. 316-317, based on London Times.)

ATHENS. — Geometric Graves. — In Πρακτικά for 1911, pp. 97-104; 358 (4 figs.; plan), P. Kastriotes describes his excavations near the church of Hagios Daniel in Athens, in which little of importance came to light except two large geometric amphorae containing unburnt bones of children. The vases had been broken in antiquity and fastened together with lead.

Grave Monuments from the Dipylon.—In Ath. Mitt. XXXVII, 1912, pp. 226-232 (4 figs.), G. P. Oikonomos publishes (1) the inscription on a stele recently removed from a wall in the northern part of the Dipylon; (2) the basis of a trapeza standing near by; (3) a stele from the Eridanus.

CHALCIS.— Mycenaean Tombs. — In Πρακτικά for 1911, pp. 236–241 (2 figs.), G. A. Papavasileiou reports that during 1911 several Mycenaean tombs containing vase fragments and a few small objects of no particular importance were excavated at Chalcis; also tombs of the classical period, as well as a few dating from Christian times. An ancient reservoir which continued in use until the fourth century B.C. was found; also a potter's oven of Roman date and near it a small bronze bell inscribed EYTYXEI NIKA.

CORFU.—Recent Excavations.—The results of the excavations carried on at Corfu during the last season have proved of great interest. An ancient temple, identified as that of Asclepius, has been completely laid bare. It is about 8½ metres wide by 11½ metres long. A large number of the columns have been found, and some of them have been reërected in their original places. In the middle of the temple was found the pedestal on which

the cult statue stood. The excavations in the temple where the relief of a Gorgon was discovered last year have also been completed. The space between the temple and the altar was cleared and a number of interesting objects found, among them the painted tiles from the roof of the temple. The altar itself is of an interesting type, being decorated on the outside with a Doric frieze of metopes and triglyphs. (Nation, October 10, 1912, p. 342.)

CYNURIA. — The Temple of Apollo Tyritus. — In Πρακτικά for 1911, pp. 253-279 (14 figs.), K. A. Rhomaios describes his excavations on the hill of Hagios Elias in eastern Laconia. A few architectural fragments belonging to a sixth century temple were found but its exact site could not be located. The foundations of a fourth century temple and of an altar of the same date were uncovered. The small objects dated from the fifth century and earlier. The more important of them are two small bronze bulls dating from the sixth century B.C., one of them inscribed AFEAONKAE, the last three letters not yet interpreted; two small bronze lions which were used as brooches, one of them inscribed; a dedication to Apollo from the interior of a cylix; piece of a bronze bowl inscribed AFEAONTVPIT, which identifies the site. The modern town of $N\tau\epsilon\rho\dot{\epsilon}$, where about 400 m. of the ancient walls have long been known, preserves the ancient name. Other finds were a bronze statuette of Heracles, a bronze horse, a siren, a few terra-cotta figurines of a seated and of a standing goddess, many iron spear points as well as swords, darts, and a trident, about ten lead crowns and a number of aryballi. The writer also points out that Polichna is the modern Poulithra, one hour south of Leonidi; that the Glympeis of Polybias is the modern Lynkia which should be Lympia; that the location of Prasiae near the little harbor of Leonidi is confirmed.

CYPARISSIAE. — Recent Discoveries. — Tentative excavations at Cyparissiae have revealed the remains of a large building with columns. Other walls seem to have belonged to colonnades. It is suggested that these are on the site of the Roman forum, but nothing more definite can be stated until further excavations are made. A few tombs were found and 122 coins. (N. KYPARISSES, $\Pi_{P} \alpha \kappa \tau \iota \kappa \acute{\alpha}$ for 1911, pp. 247–252.)

DELPHI. — Discoveries in 1910. — In Berl. Phil. W. July 20, 1912, cols. 923-927 (2 figs.), H. Pomtow continues to present the results of his discoveries at Delphi in 1910 (see A.J.A. XVI, pp. 123 ff.; 441 ff.). The architect of the Colonnade of Lysander was careless, and the materials which he used poor. Ibid. July 27, 1912, cols. 959-968 (2 figs.), he shows that Martinaud's restoration of the façade with eight columns and two triglyphs to the column is improbable. There were more likely twelve columns. Ibid. August 10, 1912, cols. 1010-1016 (2 figs.), he attempts a restoration of the Colonnade of Craterus in front of the theatre. It probably had four Ionic columns in front, and at the back on a pedestal Craterus hastening to the assistance of Alexander, who is hunting a lion. Ibid. August 17, 1912, cols. 1042-1048 (5 figs.), he contends that several fragments of an archaic Ionic column with palmette capitals belonged to the Treasury of Clazomenae, which was erected about the middle of the sixth century B.C. It was a short distance east of the Treasury of Cnidus. *Ibid.* August 24, 1912, cols. 1077–1080 (2 figs.), he assigns to this building various archaic offerings. Just below the temple, and between it and the polygonal wall, was another terrace, upon which stood a number of statues. Reference is made to this in an

inscription copied by O. Müller and E. Curtius in 1837 (Curtius, Anecd. Delph. p. 83, No. 67). Ibid. August 31, 1912, cols. 1108-1111, he shows that another inscription (Inv. 4216) proves that ή πυλίς was the official name of the east gate of the temenos. Ibid. September 7, 1912, cols. 1140-1143, he points out that the line of the wall of the upper terrace can be traced. It was irregular, and ran outside the large rock below the temple. Ibid. September 14, 1912, cols. 1170-1176 (plan), he gives a plan of the sacred precinct, with the location of all the monuments and lists of those mentioned by Plutarch and Pausanias. Ibid. September 21 and 28, 1912, cols. 1206-1208 and 1238-1240, he discusses the giro of Plutarch. Ibid. October 5, 1912, cols. 1268-1272, he discusses the giro of Pausanias. Ibid. October 12, 1912, cols. 1301-1304 (fig.), he suggests an arrangement for the statues in the twelve niches within the cella of the temple. Ibid. October 19 and 26, 1912, cols. 1335-1336 and 1365-1368, he summarizes his conclusions as to the large Tholos. In Klio, XII, 1912, pp. 281-307 (2 figs.), he argues that this building, the temple of Asclepius, and the Thymele at Epidaurus were all the work of one architect, Theodotus of Phocaea. The Tholos was built about 380-375 B.C. It had the same sima as the temple of Asclepius at Epidaurus; and the Amazon frieze on both buildings was the work of the same sculptor, Timotheus. Polyclitus probably took up the work of the Thymele after the death of Theodotus. The great Tholos, like the little one of poros which preceded it and was the oldest round building in Greece, was a prytaneum, a κοινη ἐστία for the town fire. The raised platform inside the great Tholos was for use at dinners. In Berl. Phil. W. November 2, 1912, cols. 1393-1399, he comments upon the hymn to Hestia by Aristoxenus, and makes a few corrections to his series of papers.

HAGIA MARINA. — The Prehistoric Settlement. — In Πρακτικά for 1911, pp. 205–235, G. Soteriades describes his excavations at Hagia Marina in Phocis, where he found, one half metre below the surface, a layer of Mycenaean remains 1 m. thick, below which was a pre-Mycenaean stratum $3\frac{1}{2}$ m. thick, and below that a neolithic stratum $3\frac{1}{2}$ m. thick. The houses of the neolithic period were apparently made of mud and straw, and those of the pre-Mycenaean period of stone, but the size and shape of neither can be determined. The writer discusses at length the pottery and the chronology of the different periods, concluding that the pre-Mycenaean stratum was contemporary with Early Minoan III in Crete.

The neolithic settlement must be as early as 3000 B.C.

NAXOS.—Pre-Mycenaean Tombs.—In Πρακτικά for 1911, p. 357, K. Stephanos reports opening about one hundred pre-Mycenaean tombs near Phyrrogais in Naxos. He also made a plan of the small prehistoric acropolis at Polichni, excavated last year.

PHYLAKOPI. — Excavations in 1910. — Excavations were carried on by the British School at Athens for two months in the spring of 1910 at Phylakopi, on the island of Melos. The results of the excavations of 1896–99 were confirmed. Several intramural burials (in pithoi) of infants were found. They belong to the period of the First City. The manufacture of the native "Red and Black" ware was in part earlier than the imported Late Minoan II vases from Crete, but did not cease when the importation began. No certain pieces of Cretan Late Minoan III ware were

found. Some "Minyan" pottery shows relations with the mainland. Late Mycenaean ware shows that Phylakopi was inhabited to the end of the Mycenaean period, ca. 1000 B.C. (R. M. DAWKINS and J. P. DROOP, B.S.A. XVII, session of 1910–11, pp. 1–22; 14 pls.; 2 figs.)

SAMOS. — Miscellaneous Antiquities. — In Ath. Mitt. XXXVII, 1912, pp. 199-218 (pl.; 10 figs.) M. Schede publishes a fragment of an archaic Ionic crowning moulding, thirteen pieces of sculpture, and six

inscriptions from Samos.

TANAGRA. — Excavations in 1911. — In Πρακτικά for 1911, pp. 132-142, N. G. PAPPADAKIS reports upon his excavations carried on at five different places in the vicinity of Tanagra in 1911. In all 152 tombs of different types were opened, dating from the first six centuries B.C. The men's graves contained drinking cups of different shapes and strigils, but no arms except one dagger; the women's graves had a few brooches and pins, boxes for cosmetics, etc. About 800 complete vases were found, chiefly black, without painted figures or plastic decoration. One tomb alone contained 175 aryballi; and another about 70 canthari and 30 lecythi. About 100 terra-cotta figurines, none of them important, were found, chiefly horsemen, sileni, sirens, and animals of early date. The commonest types of the fifth and fourth centuries were a seated woman and a nude youth. At Dritsa seven tombs were opened, in one of which was a blackfigured skyphos with a flute-player standing upon a thymele between two judges. At Hagios Nicolaos, south of the present town of Thebes, some Mycenaean remains came to light.

THEBES. — The Palace of Cadmus. — In Πρακτικά for 1911, pp. 143–152, A. D. Keramopoullos describes his excavations in the Mycenaean palace at Thebes in the summer of 1911. The room with the wall-paintings, partly excavated in 1906, was completely cleared, as were two small rooms to the south of it. In one of the latter was a potter's firing oven and some unfinished Mycenaean vases. The floor was covered with a hard layer of powdered lime in which were bits of painted stucco. Below this pavement was a layer of sand and pieces of fine stucco and vases. Lower down were pre-Mycenaean sherds. A few bronze arrowheads and a spearhead were found, as well as many small objects of gold and three remarkable fragments of rock crystal. Remains of an aqueduct appear to go back to Mycenaean times.

THESPIAE.—Excavations in the Necropolis.—In Πρακτικά for 1911, pp. 153–163 (4 figs.), A. D. Keramopoullos reports that in 1911 he continued the excavations in the cemetery east of Thespiae, where in 1882 Stamatakes found an ancient road and the graves of some of the men of Thespiae who fell in the battle of Delium. Several graves were opened, in some of which the bodies had been burnt before burial. Remains of the stone lion which was probably the prototype of the lion of Chaeronea were rediscovered.

THESSALY.—Discoveries in 1911.—In Πρακτικά for 1911, pp. 280–356 (15 plans), A. S. Arvanitopoullos records the discoveries in Thessaly in 1911. At Porta, three quarters of an hour from Trikkala, the Byzantine church was examined, and plans made for its preservation. At Homolium the temple lay a short distance below the summit of the acropolis. Many tiles and fragments of terra-cotta belonging to it were

found. East of the acropolis are geometric tombs. The ancient Aloium is probably to be located where remains of houses, town walls, etc. have been found on the right bank of the Peneus, north of Paliokklesi. top of the mountain near by probably stood the famous temple of Pythian Apollo, to which the embassy from Delphi came for the bay every eight years. At Lestiane, on Mount Pelion, three tombs of the geometric period. which he calls pseudo-tholos tombs, were opened; and five more near Sesklos. Many others of the same style were discovered, but not excavated. On a mountain called Spartia, above Latomeion, considerable neolithic remains were found. Part of the ancient paved road from Pagasae to Pherae was discovered, and at Iolcus a great necropolis dating from classical and prehistoric times. On the summit of Mount Pelion were two walled enclosures, in the larger of which were two temples. One seems to have been round, perhaps like the temple of Athena Polias at Gonnus (A.J.A. XVI, p. 128), but the remains of it are very scanty. In the eastern part of the precinct was probably a stoa. In the second enclosure were two other buildings, neither of which has yet been excavated. One was perhaps the temple of Zeus Acraeus. At Gonnus the temple of Athena Polias was completely cleared. There was no earlier building on the site. About forty decrees, one in the Thessalian dialect. various architectural fragments, etc., have come to light. A Doric capital of poros seems to prove that two Doric columns stood at the entrance. Below the acropolis to the west, near the gate, was a small building, perhaps a temple of Artemis. He locates Gonnocondulon between Duo Dendron and Kastori. At Olympias several grave stelae were discovered, as well as remains of three buildings not yet cleared, of which one was perhaps a mausoleum. Near Baxilar are remains of an ancient city; and near Chatzombasi was the ancient Elatea (Livy, 42, 54). with remains of a temple and other structures. One hour to the southeast, near Mikro Kaserli, are remains of a larger town, identified by an inscription as the ancient Mopsion. Near Bakraina on the Peneus are powerful walls about an acropolis apparently dating from the sixth century B.C., as well as the walls of a lower town. There are also remains of a building on the acropolis. This was probably the ancient Gyrtone. At Metropolis four more tombs of the first or second century were opened, containing many pieces of gold leaf and various small articles. The architectural remains on an elevation to the north perhaps belonged to the temple of Castnia Aphrodite, but the site has been plundered for building stone. At Kileler, near Larissa, slight remains indicate an ancient town near by, perhaps Armenium. At Agoriane the greater part of the acropolis wall still stands, and there are some traces of a lower wall. At Dranista, too, there is an acropolis wall, and slight remains of a lower city wall. In a pseudo-tholos tomb were thirty-one burnt bodies, and many small objects, including engraved gems. Many other sites in Dolopia were located, but have not yet been carefully examined. In B.S.A. XVII, session of 1910-11, pp. 193-204 (map), A.J. B. WACE and M. S. THOMPSON publish an inscription of the year 101 A.D. recording the settlement of the boundary between Doliche and Elemiotis. The inscription lies in the ruined church of the Holy Trinity, on the high road, some three hours north of Elassona. Doliche was probably at Kastri.

Other sites are tentatively identified. The boundary is determined on the basis of a decree of Amyntas III (390-371 B.C.).

THASOS. — Recent Excavations. — In C. R. Acad. Insc. 1912, pp. 193-221 (10 figs.), C. Picard describes the excavations at Thasos in 1911. The south gate with the relief of Zeus and Iris was cleared, and another gate discovered near the road from Limenas to Panagia. The gate of Heracles was also cleared. On the left side was a marble slab 2.54 m. long. 1.70 m. wide, and 0.65 m. thick, with a badly mutilated Silenus holding a cantharus in his right hand carved upon it. It dates from the sixth century B.C. Near by was a necropolis dating from the fifth or fourth century B.C. where a number of grave stelae, some of which had been painted, and twenty-three inscriptions were found. The temple on the acropolis was dedicated to Apollo Pythius. Within the terrace in which it stood were remains of a circular structure with a dromos, and in front of the temple the foundations of a great altar. Many small objects were found, including numerous pre-Ionian terra-cottas similar in type to statues from Asia Minor, also many female figures resembling the seated statues of Branchidae, and a very old statuette of a lyre player. Vase fragments were abundant and were chiefly Ionian, but some belong to Böhlau's Lesbo-Aeolian style. One vase was decorated plastically with a head. The temple was 37.40 m. long and 15.80 m. wide, but had no peripteros. The walls were covered with inscriptions. It is probable that there was a row of columns inside. Among the sculptures found were a mutilated marble head of fourth century date. a draped torso, and a bas-relief of two female figures approaching a third who is seated. The triumphal arch of Caracalla was excavated, and parts of the dedicatory inscription found. It dates between the end of 213 and April, 217 A.D., and probably stood in front of the temple of Rome and Augustus. Ibid. pp. 222-225 (fig.) A.-J. Reinach discusses the inscribed bases found with the seven life-size female statues in 1910. They were dedications to Artemis Polo. The attempts to find the temple precinct to which they belonged were unsuccessful.

ITALY

ARCHAEOLOGY IN ITALY IN 1911. - A summary and discussion of recent archaeological publications and discoveries in Italy, by R. Del-BRUECK, appears in Arch. Anz. 1912, cols. 270-322 (35 figs.). Architectural terra-cottas, especially roof-members, have received much attention, the material coming from Nemi, Conca (ca. 500 B.C.), Falerii, and Campania, especially Capua (from the sixth century down). Some important tombs are described: that at Canosa, of the early third century B.C.; that of Trebius Julius on the Via Latina at Rome, of the end of the third century A.D., with paintings of much historical interest for their subjects as well as the style and execution; and that of St. Julian at Rimini, of the fourth century, from which figured silk fabrics with human and animal designs and geometric patterns were taken. The pottery of Cumae is discussed, from the geometric (Chalcidian?) ware of the first settlers down through the time when Cumaean vases were exported to many other parts of Italy. The Etruscan stelae in the museum at Bologna, dated about 500-350 B.C., contain, among other things, the earliest known representations of combats with Gauls. At Rome, the removal of modern encumbrances from important sites and the excavation of the palace of Domitian in the Villa Mills on the Palatine are mentioned. Attention is called to the admirable museums at Bari, Tarentum, and Lecce, and to the rearrangement of the collections in the Ducal Palace in Venice and the Villa Papa Giulia at Rome. An embossed and engraved silver plate at Bari is especially beautiful. Work in Ostia, Capri, Sicily, and Sardinia is described.

BRESCIA. — Recent Discoveries. — A tomb of the Gallo-Roman period was found at Brescia, containing a large number of iron implements, and a few vases and lamps. Near the Porta Venezia a stone urn of rough workmanship was unearthed, containing a number of bronze objects, among them two mirrors, one circular and the other rectangular; also vases of glass and clay, lamps, and coins of Vespasian, Titus, and Domitian. Near by were found two Latin inscriptions. At Mompiano, a suburb of Brescia, were found a handsome glass ampulla and an inscribed cippus. (G. Patroni, Not. Scav. IX, 1912, pp. 10–12.)

CROTON. — Excavations in the Sanctuary of Hera Lacinia. — The first campaign of excavation in the sanctuary of Hera Lacinia was devoted to determining the form and character of the peribolus. Architectural fragments were brought to light in considerable numbers, together with ornaments in bronze, bone or ivory, and glass, and a few inscriptions. A number of architectural members in terra-cotta were found, representing various periods, and showing the transition from decoration in color to that in relief, with various intermediate stages. The marbles discovered under the sea near the Heraeum, and supposed to belong to a cargo coming from Greece or carried off by the Romans from the sanctuary, were shown by an inscription to belong to a period as late as 206 A.D. The presence of three large labra of Luna marble seems to show that the Romans of this late epoch continued to make offerings to the shrine, unless the labra were intended for some villa in the neighborhood. (P. Orsi, Not. Scav. VIII, Suppl., 1912, pp. 77–124.)

FALERIA PICENA.—Hoard of Roman Coins.—A hoard of 7400, silver and bronze coins of the third century A.D. (Alexander Severus, Gordian, Gallienus) was found in a terra-cotta vessel at Faleria Picena while work was being carried on in a vineyard. Professor Dall' Osso of the museum at Ancona announces that the hoard contains some rare and

important coins. (Boll. Num. X, 1912, p. 43.)

FALERII. — Excavations at Monte Cerreto. — The excavations at Monte Cerreto disclosed some ancient tombs which had been rifled in antiquity, but contained some funerary offerings abandoned or overlooked by the robbers, including bucchero ware of the fifth century and a cylix of local manufacture of the fourth century, preserving the Attic form of the sixth century. This was decorated with the group of Bacchus and Ariadne which appears on an Etruscan mirror (Gerhard, I, 83), but inferior to this in artistic merit. (E. GABRICI, Not. Scav. IX, 1912, pp. 73–74.)

FANO.—Roman Victoriates.—A discovery at Fano in 1911 of 88 victoriates, all but one in mint state, is described by LORENZINA CESANO, who proceeds on the text of this and other enumerated finds of victoriates to a full discussion of the history of this class of coinage. (R. Ital. Num. XXV, 1912, pp. 299-348; pl.)

FIUMICINO. — Discoveries in the Isola Sacra. — In the Isola Sacra, near S. Ippolito, Fiumicino, foundations were discovered which showed the existence of large warehouses opposite the harbor of Claudius, with a court with colonnades at the landing place. In the course of the excavations there were found weights, brick stamps, fragments of sculpture, and other small objects. (E. Gatti, Not. Scav. VIII, 1911, pp. 410-416.)

FUNDI.—An Early Christian Shrine.—About 5 km. northeast of Fundi, on a hill called Villa, an ancient Christian shrine was uncovered, with paintings of the sixth or seventh century, representing horses, female heads, and the like. There were also found a considerable number of pagan inscriptions, one of 337 A.D., and in the collection in the former convent of S. Francisco in Fundi some inscriptions which were unpublished or incorrectly published in Count Colino's History of Fundi, 1902. Other unpublished inscriptions were found in the Church of S. Pietro Apostolo in Fundi. (S. Aurigemma, Not. Scav. IX, 1912, pp. 53-61.)

LOCRI EPIZEPHYRII.—A Report on the Excavations.—The preliminary report of the excavations at Locri Epizephyrii records the discovery of 266 tombs of various kinds in the necropolis, arranged from north to south. Both cremation and inhumation were employed, but the latter



FIGURE 3. — LOCRI EPIZEPHYRII. TERRA-COTTA ACROTERION. RESTORED.

predominated. The tombs date from the sixth to the fifth century B.C. A number of vases were found, including white lecythi of somewhat poor workmanship, as well as other funerary objects. A very few gold and silver ornaments were found, but no less than 26 bronze mirrors, or about one to every ten One of these, a standing mirror, had for its handle an archaic ephebus, whose head and uplifted arms supported the disk of the mirror. Others had handles richly ornamented with Ionic volutes

and palmettes. The Doric temple at Casa Marafioti was uncovered and its plan determined. In the course of the excavations a number of interesting fragments of architecture and sculpture were unearthed, of which the most striking was a winged sphinx with human arms ending in paws like those of an animal. According to the restoration of a large number of fragments by Sig. Rosario Carta (Fig. 3), this sphinx supported with its upraised arms the feet of a mounted rider, the belly of whose horse rested on the back of the sphinx, forming a unique group, which is believed to have been one of the acroteria of the temple. Two tiles were found in the excavations, bearing in Greek the name of Clodius Pulcher, but without a praenomen, besides a fragment in archaic Greek letters. The small temple of Athena was also

examined and a number of terra-cotta statuettes of the goddess found, in a fragmentary condition. The exploration of the sanctuary of Persephone yielded a considerable number of fragments of vases and sculptures in terra-cotta. (P. Orsi, Not. Scav. VIII, Suppl., 1912, pp. 3–76.)

MOLTENO. — Coins in Roman Tombs. — Among other objects found in ten Roman tombs opened in a private garden at Molteno (Brianza) were a dozen coins belonging to the period of Constantine, etc. They are of no numismatic importance, but serve to date the tombs. (R. Ital. Num. XXV,

1912, pp. 287-288.)

MOUNT CAVO. — A Second Century Cemetery. — During some excavations undertaken at Mount Cavo, in the Roman Campagna, the diggers struck upon an extensive cemetery belonging to the second century A.D. A gladiator, clad in iron armor, was discovered in one of the tombs, which was covered with big tiles taken from the temple of Tiberius. There were also found a number of bronze coins bearing the head of the Empress Faustina, a quantity of rings and safety pins, the head of an elephant in terra-cotta, and a fragmentary vase with inscription. (Nation, November 28, 1912, p. 518.)

NAPLES.—An Inscription naming Cumae.—In the Naples museum an unpublished inscription naming Cumae was found, discovered in 1905 in the fondo Origlia. (S. Aurigemma, Not. Scav. IX, 1912, p. 61.)

NAZZANO.—Recent Discoveries.—In the district called Santa Lucia, on the south slope of Monte San Pietro, a number of interesting funerary offerings were found, portions of an amber necklace, bronze fibulae with rings suspended from them, and other small objects assigned to the first Iron Age, besides some coins of the Roman period. Excavations conducted by the Museo Nazionale di Villa Giulia resulted in the discovery of a grave containing the corpse of a woman, with vases and rich bronze ornaments, resembling those found in the necropolis of the Esquiline. (E. Stefani, Not. Scav. VIII, 1911, pp. 433–442.)

OSTIA. - Excavations in the Barracks of the Vigiles. - In the course of the excavations in the barracks of the Vigiles a number of fragments of Arretine vases with inscriptions were found, and a list of soldiers of the third cohort of the century of Claudius, from the Ides of August to the Ides of December, 166 A.D. Rare names are Cassienus and Laesina. Each name is followed by the letters K. C. Although there is but one freedman in the list, the parentage is given in only two cases. A number of lamps and fragments of sculpture also came to light. (D. VAGLIERI, Not. Scav. VIII, 1911, pp. 403-410.) On the left and right of the entrance to the barracks were found mosaics in black and white, signed in Latin and in Greek respectively by Proclus. On the south side of the Via dei Vigili, opposite the front of the barracks, were found a number of inscribed lead pipes, one of Gallienus, 251–253, as well as stamped bricks and small objects. In the small market was found an antefix with a lotus bud between two serpents, according to Professor Marini the symbols of Sobku. (D. VAGLIERI, ibid. IX, 1912, pp. 127-134.) Excavations beneath the Via dei Vigili prove that this street was cut through previously existing buildings. One of these contained a large black and white mosaic, 13 metres by 9, dating probably from the middle of the first century A.D. Of special interest are the squares containing representations of four provinces, Sicily, Africa, Egypt, and apparently Spain; and four of the winds. The whole has an obvious relation to the maritime importance of Ostia. (G. Calza, B. Com. Rom. XL, 1912,

pp. 103-112; pl.; 2 figs.)

Excavations in the Via dei Sepolcri. — On the road connecting the Via Ostiensis with the Via dei Sepolcri at Ostia were found various small objects, also a tomb ornamented with sculptured heads. In the latter was found a Boeotian coin assigned by Head (Hist. Num. p. 299) to the years 244-197 B.C. In the Via dei Vigili numerous inscriptions were found, including lists of vigiles, stamped bricks, etc. (D. VAGLIERI, Not. Scav. VIII, 1911, pp. 447-454; IX, 1912, pp. 22-26.) Under the road joining the Via Ostiensis with the Via dei Sepolcri was found a mass of marble fragments, destined for the limekiln, or to be used as building material. Among them were some interesting fragments of sculpture. The gate of the barracks of the Vigiles was uncovered and found to be 3.95 m. in width, with a threshold of travertine on which there were no traces of wheels. The pilasters on the outside contained some graffiti. There is a vestibule, 6 by 4.25 m. with a pavement of teguli bipedales, and on the right, as one enters, a portico 11.90 by 4.25 m. with a mosaic pavement in black and white. In a tomb on the north side of the barracks two tabulae lusoriae were found and a tabula defixionis. On the south side of the small market were found some small terra-cotta and bronze objects, including a bronze bell. (D. VAGLIERI, ibid. IX, 1912, pp. 47-52.) In a republican tomb on the Via dei Sepolcri were found a large number of fragments of bones with figures in relief, probably used as the decoration of urns or caskets. According to L. Marini, such decorations were frequent in late republican times in tombs found in Pentima and Ancona. Some recall the Etrusco-Ionic ones published by Pollak in Röm. Mitt. XXI, 1906, pp. 314 ff., pls. XV-XVI, but are much later. Some, perhaps, formed the decoration of musical instruments. (D. VAGLIERI, ibid. IX, 1912, pp. 95–101.)

PAVIA. — Minor Discoveries. — Excavations in the vicolo S. Gregorioyielded scanty results, although one tomb was found which was the oldest datable yet discovered in that locality. A few coins and other small objects were found. In the piazza Castello a Christian tomb was unearthed, with an inscription and a few small objects. (G. PATRONI, Not. Scav. IX, 1912,

pp. 3-6.)

POMPEII. - The Excavations in the Via dell' Abbondanza. -In the excavations on the east side of the Via dell' Abbondanza, at the crossing of the roads between Ins. vi and vii of Reg. i, and vii and xi of IX, there was found a shrine with a painted frieze, representing the twelve Dei consentes or Penates publici of Pompeii (Fig. 4). These are in their order: Jupiter, Juno, Mars, Minerva, Hercules, Venus, Mercury, Proserpina, Vulcan, Ceres, Apollo, and Diana, while in the similar painting in the Vicolo dei XII Dei Vesta and Neptune appear in place of Hercules and Proserpina. The order, too, is different in the new painting, and the Capitoline triad, with the addition of Mars, appear at the ends, instead of in the centre. On one of the sides of the shrine is a painting, representing a sacrifice by the vici magistri and the ministri vici et compiti, while an inscription preserves the names of the four members of the collegium compiti for a year not much The street between Ins. vi and vii was closed by a earlier than 79. wooden door, while the passage through it of carriages was prevented by

three blocks of tufa. A large number of election notices were found in the vicinity, including one distich, some of which are of special interest; and two abecedaria. Outside the Porta Nolana a skeleton was found, from which a cast has been made, of a man lying on his back with legs upraised and holding in his grasp the branches of a tree. (M. Della Corte, Not. Scav. VIII, 1911, pp. 417–432; 455–460.) In the fauces of No. 7 on the north side of the road two paintings were found, one of a nude male figure, perhaps Hercules; the other of a nude Hercules with the lion skin and club, leading a white pig with a large red fillet about its body; also several election notices. Directly to the east of this was found a second-story cenaculum, the front of which projects over



FIGURE 4. — POMPEII. THE TWELVE GODS.

the street. In front are columns with grooves for inserting wooden shutters, to close the openings between the columns. Numerous brick-stamps were found, including one in Oscan. On the south side of the road the continuance of the excavations yielded various bronze objects, including scales, glass vases, etc.; dried figs and dates, iron implements, and the remains of a wooden cask with a spigot; also a few election notices. In the excavations at the end of the same street the hanging balconies were further uncovered and some graffiti found. (M. Della Corte, ibid. IX, 1912, pp. 27-32; 62-71.) The cenaculum mentioned above proved to have under it two passageways, one the entrance to a shop, while the other probably opened on a stairway leading to the cenaculum, on the floor of which were found many fragments of drinking vessels for birds, suggesting that at one end of the room there was a large aviary. Fragments of lamps were also found. Beyond is a second cenaculum, not so well preserved. On the opposite side of the street the passageway at No. 7 of Reg. 1, Ins. iv was cleared out and several election notices found on the pilasters at its entrance. In Reg. IX, Ins. X was a hanging balcony, and to the left of it, at a lower level, four rectangular blocks of stuccoed stone, adorned with paintings, which although separated by narrow spaces, were supported by a wooden structure and formed the architrave of the passageway below. The four blocks of stone were ornamented with paintings of four divinities: Sol, Jupiter, Mercury, and Luna. The pilasters at the side of the passageway were also decorated with paintings, the one on the right of a sacred procession, which has halted to perform a sacrifice; the other of a large female figure identified as Venus Pompeiana. (G. Spano, ibid. IX, 1912, pp. 102-120.) The goddess is richly adorned,

wearing a golden diadem with a large ruby, on her right hand a ring set with a ruby and on her left five set with emeralds, a necklace, and pearl earrings. She carries in her right hand a five-branched spray of olive. The picture contains also three cupids, one standing on a stool by the side of the goddess and holding a large mirror; the others flying towards her from the right and left. The hanging balcony was to slope slightly from east to west, where there were two openings. One of these conducted the rain water by a lead pipe into a cistern within the shop, while the other carried it to the street. Thus the structure, while a genuine balcony, served also as impluvium pensile. On the other side of the street were found numerous election notices, a handsome bronze lamp, and a beautiful couch-back in bronze, ornamented with the head of a mule or the ass of Silenus, since the head is crowned with a garland of ivy leaves and berries. A large number of election notices came to light at different points, some of which are of special interest. One mentions a college of quactiliari (coactiliarii); another infectores. (M. Della Corte, ibid. IX, 1912, pp. 135-148.)

ROME. — Recent Discoveries in the Forum. — Interesting discoveries have lately been made in the Roman Forum, where the south end of the nave of the Basilica Aemilia has been cleared. Three different strata were found: (1) a thin layer of ashes, with coins and remains of wood and iron (the latter belonging probably to the roof) lying on the pavement; (2) a stratum of earth, 3 feet thick, with marble fragments of the architectural members of the building lying upon it; (3) the west wall of the nave, which fell inward, probably in the eighth century A.D. From this it seems to follow that the building was not restored after the fire of the fifth century A.D., as has been hitherto supposed, with a row of red granite columns along the façade in place of the arcades that had hitherto existed, but that these columns had some other use; and that it was not totally destroyed by fire, but lay abandoned until the collapse of the nave wall already mentioned. (Nation, October 24, 1912, p. 393.)

Excavations in the Forum of Nerva. — Excavations made in the Forum of Nerva have led to the discovery of the base of the western of the two standing columns, the so-called Colonnacce, the only remnants of the portico of the famous temple of Minerva. These columns had long remained half-buried in the ground; the total depth of the western column below the surface was shown to be no less than 16 feet 4 inches. Other excavations are being carried on at the foot of the celebrated Torre delle Milizie, commonly known as the "Tower of Nero," though it was not erected till about the year 1200. It has now been shown, however, that this mediaeval tower rests partly upon ancient Roman ruins and partly upon an ancient paved street. (Nation, August 29, 1912, p. 199.)

Recent Excavations on the Palatine.—Recent excavations on the Palatine have brought to light the representation of a camel at a considerable depth, a marble head of a woman, a piece of gilt stucco from the dining room of Domitian, some fragments of mother-of-pearl and a number of writing styli. A piece of pavement proves that opus Alexandrinum existed before the time of Alexander Severus, probably as early as Nero. (Nation, August 29, 1912, p. 199.) The excavations will soon be opened to the public. When the clearing of the débris from the atrium of Domitian's palace has been completed, a good view will be obtained of the vast impluvium of

the palace of the Caesars. This colossal fountain had a capacity of a thousand cubic metres. The water was distributed in lead pipes from Nero's acqueduct, fifteen feet below the *impluvium*. The foundations of the Golden House and earlier Caesarian dwellings have been laid bare. Below these have been found some interesting remains, including twelve ancient lifts. One of these lifts, which descends into the earliest known city, is being cleared and put into working order. (*Ibid*. October 3, 1912, p. 317.)

The Excavation at the Baths of Caracalla.—The results of the extensive and important excavations on the north side of the Baths of Caracalla are summarized, by G. Gatti in B. Com. Rom. XL, 1912, pp. 158-159.

The Horrea Seiana.—During the continuation of the Via Giovanni Branca there were found, in the area included between this road, the Via Beniamino Franklin and the Tiber, remains of walls and several inscriptions (see A. J. A. XVI, p. 446). Among the latter is a dedication to Silvanus by the vilici horreorum (Seianorum), and one by a collegium thuraniorum et unguentariorum. There was also found a hoard of 770 coins, from Antoninus Pius to Gallienus, so badly damaged by fire that 115 were wholly illegible. Since the walls probably belong to the horrea Seiana, these must have been nearer the river than has been supposed, south of the street leading from the Marmorata to the Tiber. (E. Ghislazoni, Not. Scav. VIII, 1911, pp. 444–447.)

The Horrea Galbiana.—In laying the foundations of a building in the space bounded by the Vie Amerigo Vespucci, della Marmorata, Giovanni Branca, and Cristoforo Colombo numerous walls were discovered, forming a part of the horrea Galbiana. A handsome column base in marble, a metre in diameter, was also found, which was taken to the Capitoline Museum. This seems to have come from the shop of a worker in marble, since with it were found a number of blocks of precious marbles (mainly cippolino and serpentine), chips of various kinds of alabaster, and two female heads in alabaster. (E. Ghislanzoni, Not. Scav. IX, 1912, pp. 121–122.)

A Large Tomb.— Near the eighth milestone, on the right of the Via Anagnina, was found a large tomb. Near it was a fine portrait head of a triumphator in Luna marble, ascribed to the end of the first or the beginning of the second century, and another head, badly damaged, of the same person or of his wife. These seem to have formed a part of the external decoration of the monument. There were also found fragments of a large and richly decorated sarcophagus, ascribed to the middle of the second century of the empire, and near by the traces of a road running from west to east on the left of the Via Latina. (G. Mancini, Not. Scav. IX, 1912, pp. 34–38.)

Ancient Roads.—In constructing the new Via dei Parioli, 60 m. from its junction with the Via di Porta Pinciana, were found the remains of an ancient road running in the same direction as the Via dei Parioli. A number of tombs and inscriptions were discovered, including one slab inscribed on both sides and a Christian inscription with z for consonant i (huzus=huius). (O. Mancini, Not. Scav. IX, 1912, pp. 43-47.) Excavations for a church on the Via Sicilia, at the corner of the Via Toscana, at a depth of 2.40 m., brought to light an ancient paved road running from north to south, (E. Ghislanzoni, ibid. VIII, 1911, p. 443.) At the corner of the Via Porta Maggiore and the Via Principessa Margherita a road was found running

north and south, and near by a columbarium and two sepulchral chambers. Several inscriptions and pieces of sculpture were also discovered. (E.

GHISLANZONI, ibid. VIII, 1911, pp. 393-403; fig.)

A Marble Group.—At Tre Fontane was found a statue of a youth in Luna marble, lying on a couch without supports, but provided with pillows and *stragula*. At his right are the feet of another person, and a part of the legs and arms; at his left a serpent, which is approaching to eat an egg, which the youth holds in his left hand. The group is assigned to the first part of the first century of our era. (E. Ghislanzoni, *Not. Scav.* IX, 1912, pp. 38-42.)

Fragments of Sculpture. — Near the seventh milestone, and about 600 m. from the Via Salaria, traces of a small bridge were found, besides numerous fragments of marble. Among the latter was a female torso, probably a Diana; a fragment of a marble dog, probably forming part of a group with the latter; a Doric capital with a fragmentary inscription; and part of an inscribed cippus. (A. Pasqui, Not. Scav. IX.

1912, pp. 21-22.)

Inscriptions.—At the corner of the Via Tre Madonne and the Vicolo Sachetti remains of tombs were found with several inscriptions, one of which is noteworthy as recording the day of a child's death. (E. Ghislanzoni, Not. Scav. IX, 1912, pp. 15-16.) At No. 219 of the Via Casilia, about 3 km. from the Porta Maggiore, were found a sepulchral chamber containing a sarcophagus in Luna marble, and in and near it a number of inscriptions, including a fragment of Acta ad sepulcra spectantia (cf. C.I.L. VI, pp. 1355 and 3502). (E. Ghizlanzoni, Not. Scav. IX, 1912, pp. 16-21.) Forty-five inscriptions were found in a columbarium on the Via Labicana, and a few others in the Via Portuense. (E. Ghislanzoni, ibid. pp. 122-127.) Other recently found inscriptions are published by G. Gatti, B. Com. Rom. XL, 1912, pp. 160-175.

A Temple of Mithra.—One of the largest, most complete, and most important temples of Mithra is being unearthed in the vast excavations now proceeding at the Baths of Caracalla at Rome. The temple proper underlies the stadium, which consists of a central nave 75 feet long, flanked on either side by an aisle. Many relics of Mithra worship are coming to light, among them a number of valuable inscriptions. (Nation,

October 3, 1912, p. 317.)

Changes in the Capitoline Museum.—The Egyptian and Christian monuments in the Capitoline Museum have been recently rearranged. Of the former the most important were discovered in the excavation of the large temple of Isis and Serapis, near the church of S. Maria sopra Minerva, in 1883. (O. Marucchi, B. Com. Rom. XL, 1912, pp. 3–14.)

The International Congress of Archaeology.—In the Nation, November 14, 1912, pp. 467–468, is a brief account of the third International Congress of Archaeology, held at Rome, October 9 to 16, 1912.

SPAIN AND PORTUGAL

DISCOVERIES IN SPAIN AND PORTUGAL.— The biennial review of work in the Iberian peninsula, by P. Paris, occupies cols. 403-468 of *Arch. Anz.* 1912 (56 figs.). He mentions, with frequent reference to the

original publications, the grottoes and rock-shelters of the Asturias, Aragon, and Andalusia; the Iberian city of Numantia underneath the Roman remains; the native, Greek, and Roman settlements at Emporiae; and the Roman Merida; and illustrates their art, both native and imported. Among the objects to be noted are the palaeolithic rock-paintings of the grottoes, which display an extraordinary life and vigor; some primitive anthropomorphic stelae from Portugal, which are equally remarkable for their infantile lack of skill; some fragments of Iberian sculpture, of varying degrees of merit; the native pottery of Aragon and Catalonia, with some idols and a terra-cotta from Numantia, all extremely crude; an Iberian vase from Ampurias (Emporiae), in which the vivifying effect of Greek influence is seen; Greek vases and Arretine and Gallic terra sigillata, with one doubtful little amphora having a raised design; a beautiful marble head of a goddess, suggestive of the school of Scopas: a Graeco-Roman colossal statue of Asclepius; a fine archaic statuette of Demeter: two plaques from bronze-coated coffers, one a Dioscurus, the other a complicated Mithraic composition, - these, too, all from Ampurias; a colossal seated statue of Demeter which vividly recalls the Demeter of Cnidus; some incredibly primitive native stelae of the Roman period; and two Greek bas-reliefs, the Dioscuri from Javea and a puteal from Cordova, which represents the rivalry of Athena and Poseidon on the Acropolis. Among the inscriptions the most interesting are those which give the names of native divinities — the Lucoves, Jupiter Ahoparaliomegus, a goddess Reva (patroness of the Arevaces?), the god Aernus, and the goddess Stelatesa.

AGUILAR DE ANGUITA. - The Excavations of the Marquis of Cerralbo. — In C. R. Acad. Insc. 1912, pp. 433-443, J. DÉCHELETTE describes the excavations of the Marquis of Cerralbo in Spain. At Torralba he has uncovered an elephant hunters' camp. At Aguilar de Anguita (Guadalajara) he has opened about 2200 graves, and at Luzaga, 6 km. to the southeast, 1813 more, and in addition 300 other graves at Arcobriga. The bodies in all of these had been burned and the ashes deposited in urns. In the women's graves were bracelets, etc., and in the men's graves weapons. They were chiefly of iron, consisting of daggers and lances; but bronze disks, adorned with simple geometric designs and fastened together by means of bands, were used to protect the chest and back. A curious iron object resembling a collar was perhaps used to support a woman's headdress. Many pieces of harness were found, and nine iron horseshoes. Another iron horseshoe has recently been found on a Hallstatt site near Nancy. The graves probably date from the fourth century B.C. and later. The weapons show Greek influence, but no imported objects were found.

MADRID.—An Iberian Lion.—In C. R. Acad. Insc. 1912, pp. 162–164 (fig.), E. Albertini publishes a lion from Cerro del Minguillar recently acquired by the museum in Madrid. It is 1.07 m. long, carved out of a soft calcareous stone and carefully polished. It is an interesting specimen of early Iberian art.

NUMANTIA. — The Seventh Campaign. — The seventh campaign of the German excavations, that of 1911, is reported by A. Schulten in Arch. Anz. 1912, cols. 82–89 (2 plans; 6 figs.). The work was chiefly on

the five overlapping camps on the hill of Renieblas, to the east of the city, completing the outlines and adding many details of the inner constructions, especially of Camp III, by which the dates and purposes of the different enclosures may be learned. Nos. I-III are of quite irregular shapes, adapted to the contour of the hill. Camp II is now held to be an independent work, near to I in date, and not an enlargement of III. The lastmentioned camp, assigned to Nobilior in the year 153, received the greatest amount of attention. It presents interesting variations from the normal arrangements for that epoch as given by Polybius, resembling, in the position of the forum and quaestorium, behind the praetorium, the older plans of the period 294-178, described by Livy. The number of victoriati found in this camp is noticeable, as these coins were all stamped before 217 B.C. It is evident in the plan that the Roman citizen troops took much the best positions in the camp, leaving the steep and exposed parts for the Italian allies. Camps IV and V, both quadrangular in shape, appear to be a summer and a winter camp, and of the same epoch, perhaps of the same year. One of the gates, on the plan of the Porta Praetoria at Aosta, of the time of Augustus, having a court flanked by two strong towers, is of interest for the early date. We see here a bracchium, a wall running from a corner of the camp down to the river, as a means of securing the water supply. The tribunes' quarters have a triclinium and other evidences of some luxury. Two other camps, also apparently belonging to the Celtiberian War, have been found at Soria and Almazan. The latter, which is 40 km., or two days' march, from both Numantia and Ocilis, where the Romans had their stores in 153, probably marks a stopping place of Nobilior on this road, and the intermediate stations on both sides of it are still to be sought. Much other important work, at these places and at Renieblas and elsewhere in the region, including the site of Numantia itself, is urgently needed to complete our knowledge of this war. In the Journal of Roman Studies, I, 1911, pp. 180-186 (pl.; 3 figs.), G. L. CHEESMAN gives an account of the excavations at Numantia to date.

FRANCE

ARCHAEOLOGY IN FRANCE IN 1911. - Among the discoveries, most of which have been published, the following may be mentioned: A cast of the Venus of Arles, made before the restoration by Girardon, in a school at Arles; at Merveille (Nord), three bronze figures (A.J.A. XVI, p. 134); at Alesia, parts of the fortifications, in the Gallic timber and stone construction, a large atrium, 26-20 m., with porticoes supported by square pillars, and the first example found on Mont Auxois of a grave-stone with portrait of the dead; at Nantes, in the foundations of the ancient church of St. John, two basins, one of them certainly Roman, which are thought to be the fonts of the original fourth-century Baptistery; on the hill Fourvière near Lyons, the somewhat elaborate mausoleum of a boy or young man, erected by his parents, and a large mosaic floor, 14 m. square, with a picture of Bacchus riding on the panther, a very fine specimen of the style of the Antonine period; at Vaison (Vaucluse), a double herm and other objects in the theatre, where also some investigations of importance for the architecture of ancient theatres have been made; at CastelRousillon (Eastern Pyrenees), the dimensions of the ancient forum, ca. 48-33 m., and forty large pedestals arranged about the sides, one of which bears the name of P. Memmius Regulus, consul suffectus in 31 A.D., who was intrusted by Tiberius with the arrest of Sejanus in the Senate; at Vaugines (Vaucluse), an altar table carved with Christian symbols, which is perhaps later than those of the fifth or sixth centuries, but still ancient. (E. Michon, Arch. Anz. 1912, cols. 469-477; 4 figs.)

pp. 449-454, Dr. Capitan and M. Peyrony call attention to two skeletons of children recently found in graves in the lower part of the Mousterian level at La Ferrassie; and another skeleton dating from the Magdalenian epoch found at Cap Blanc. The last mentioned lay on its left side with

elbow touching the knee. Both sites are in Dordogne.

LYONS. — Recent Discoveries. — B. Soc. Ant. Fr. 1912, pp. 283–286, A. HÉRON DE VILLEFOSSE calls attention to the excavations of S. de Montauzan and P. Fabia at Lyons last winter. Among the objects found were an ivory mask of Pan, some marbles, clay moulds for making money, and some pieces of pottery. One of the vase fragments has an erotic scene known from the other examples and inscribed tene [o te].

MONTELS. — A Primitive Figure in Relief. — In Bul. de la Soc. Arch. du Midi de la France, No. 40, 1912, pp. 141–143 (fig.), Abbé HERMET publishes a stone 80 cm. high, 60 cm. wide, and 12 to 15 cm. thick, upon one side of which is carved a very primitive human figure. It was found at Montels, Commune of la Serre, in 1907, and has recently been removed to

Toulouse.

PARIS. — A Glass Cup. — In R. Arch. XX, 1912, p. 172 (4 figs.), S. R. briefly describes a glass cup from Heraclea on the Pontus which was sold at the Hôtel Drouot for 64,000 francs to Mr. Sambon. The real purchaser is, perhaps, Mr. J. P. Morgan. The cup is blue, with white figures. The subjects are related to the cult of Priapus.

REIMS.—Gallic Vases.—In B. Soc. Ant. Fr. 1912, pp. 279-283, L. Demaison calls attention to two Gallic vases found in the commune of Bétheny and recently acquired by the museum at Reims. One is urnshaped and decorated with horses in light on a dark ground. The second vase, which is badly broken, had a similar decoration. He also publishes

three small Latin inscriptions.

SAINT-MICAUD.—A Menhir with Decoration.—In 1871 a menhir at Saint-Micaud (Saône-et-Loire) which had long been known was thrown down. This has now been set up again and upon it has been discovered a carved decoration consisting of several figures. One of these evidently represents a horned serpent, which proves that the figures were added to the stone in Gallo-Roman times. (J. DÉCHELETTE, M. Soc. Ant. Fr. LXXI, 1911, pp. 1–13; 4 figs.)

TOULOUSE. — The Roman Town Wall. — In Bul. de la Soc. Arch. du Midi de la France, No. 40, 1912, pp. 57-62 (plan), J. CHALANDE describes two pieces of the Roman town wall recently discovered at Toulouse. They are about 25 m. long and apparently date from the reign of Diocletian.

A Horned Deity. — In Bul. de la Soc. Arch. du Midi de la France, No. 40, 1912, pp. 237–239 (fig.), J. DE LAHONDES publishes a crude bas-relief at Toulouse representing the horned deity of the Gauls.

BELGIUM AND HOLLAND

ARCHAEOLOGY IN BELGIUM IN 1911. - The chief event of the year, important for prehistoric chronology, was the discovery near Liège of worked flints underneath certain geological strata five metres or more in depth. Neolithic stations have been found in East Flanders, and at Vauxet-Borset (Hainaut) sixteen new hut floors have been examined. numerous small objects found here include fragments of two remarkable jars of fine black clay, and with geometrical ornament incised or punched. The foundations of an important Belgo-Roman villa were found (A.J.A. XVI, p. 448) at Haulchin (Hainaut). A stairway leads down to an underground story, with niches in the walls. Another at Try Solet (Namur) shows the now well-known type, with wings projecting forward from both ends of the long building behind which is the court or farmvard. Excavations carried on outside the gates of Tongres (Limburg) have produced a variety of objects from Belgo-Roman graves, including coins of Antoninus and Marcus Aurelius. Outside the gate of St. Trond was found a huge jar of gray earthenware, measuring 90 cm. in height and perhaps 2 m. in girth. Merovingian burial places were examined at Vyle-Tharoul and at Barse (Liège) and at Brecht (Anvers). Opposite the last was found one belonging to the Hallstatt period. (L. Renard-Grenson, Arch. Anz. 1912, cols. 477-482.)

VAUX-ET-BORSET. — Recent Discoveries. — In B. Mus. Brux. XI, 1912, pp. 43-48 (9 figs.), 81-84 (5 figs.), 95-97 (4 figs.), A. de Loë reports the discovery of another hearth at Vaux-et-Borset (Province of Liège). Stone implements and potsherds were found in abundance. Ancient remains of little importance were unearthed at Wenduyne, Renaix, Furfooz, Ciney, and Goyet; and a small circular fort probably of Belgo-Roman date near Heinstert.

VORBURG.—A Roman Fort.—In Röm.-Germ. Kb. V, 1912, pp. 71–75, J. H. Holwerda reports on the results of excavations conducted during a period of two years on the Arentsburg, an estate at Vorburg, Holland. The wall of a Roman fort was traced on the north and west sides; one of the gates was located and remains were found of wooden barracks, belonging to different periods. Judging from the pottery, the fort was originally garrisoned by native troops; the later barracks date from the middle of the second century. Most interesting results were obtained on the south side, where it developed that the wall, resting on piles, continued into the water of the canal. The fort was evidently a naval station.

SWITZERLAND

ARCHAEOLOGY IN SWITZERLAND IN 1911-1912. — An account of the work done and results reached by various societies and individuals excavating in Switzerland in 1911 and 1912, with especial attention to Vindonissa, is given by O. SCHULTHESS in Arch. Anz. 1912, cols. 496-525. At La Tène the arms of a warrior and remains of the ox cart with which he must have been drowned were found in the river. At Basle, on the bank of the Rhine, a number of round Gallic house floors or pits were found. A decorated vase from here is of the late La Tène period, about 50 A.D. In Lake Neuchâtel a massive oak rudder, 34 feet long, was

found, the date of which is uncertain. At Avenches (Aventicum) were found some interesting underground waterworks, with a vaulted reservoir and a fine marble basin or labrum; also a fragment of a bronze inscription, which seems to mention the vicani. At Grenchen (Solothurn) a villa rustica with hypocaust, frescoed walls, and abundant remains of roof tiles. appears to belong to a series of Roman country estates which were founded along the valley of the Aire, on the Vindouissa-Aventicum road, in the third century. At Geneva, a fine female head of Carrara marble, said to have come from Martigny, is of the first century A.D., and illustrates the taste of the Roman ladies for archaistic styles in hair dressing. At Vindonissa. the date of the so-called Celtic moat or ditch on the east side of the camp is still uncertain. It was apparently open and used by the Romans as part of the defences, when they had their first earth-and-timber fort there, and was then reënforced by two smaller parallel ditches. The wider ditch was filled up and built over at the time that their stone camp was built, about 47 A.D. The Büel tower is judged to be part of the first-century stone fortifications. The Roman road in the Steinacker, which has been followed for some distance, is not earlier than Tiberius. An imposing grave monument (2.90 by 2.60 m.) and other remains indicate the existence of a road and a bridge over the Aare at the Black Tower near Brugg. Other graves belong to a burial place on the road leading to the amphitheatre. Steinacker are two square buildings with carefully prepared floors, one of which was a wine cellar, and the larger and more pretentious may have served a similar purpose. They are of the first century A.D., and were reduced to their ruined condition in antiquity. An inscription found in the larger building, not in situ, may belong to the later occupation of Vindonissa, before 260 A.D. It gives the name cives Romani to the inhabitants, and has the name of an emperor erased. Some fifty types of the brick stamps of the XXI and XI legions, which are found here and in many other parts of the site of Vindonissa, have been published by V. Jahn. The clay pits and kilns for their manufacture are between Rupperswil and Hunzenschwil. The pre-Roman refugium at Obergösgen on the Aar is found to have been occupied in the time of Marcus Aurelius, as well as in mediaeval times. Burgundian graves were found at Lausanne, at Cressier (Neuchâtel), and probably at St. Maurice; an Allemannic cemetery at Beringen (Schaffhausen), and an Allemannic skull with earrings at Oberkirch near Frauenfeld. A Celtic and Roman burial field was explored at Gudo, south of Bellinzona. The burial ground at Kaiseraugst (Augusta Rauraca) is barbarian, but contains many Roman coins, especially in the graves of children, and other imported objects, besides those of the Bronze Age. The Roman and other foreign objects found in the Celtic graves of the early La Tène period at Darvella (Eastern Switzerland), and at many other places in this region, indicate a trade route from the south through S. Bernadino, Vals, and Rheinwald.

GENEVA.—Bronzes in the Museum.—In R. Arch. XX, 1912, pp. 32-42 (68 figs.), W. Deonna publishes outlines of most of the bronzes in the museum at Geneva, with brief notes. The types are for the most part familiar. This article is intended as a supplement to Reinach's Répertoire, and includes notes on those bronzes in Geneva which are already published by Reinach.

Congress of Prehistoric Archaeology. — A brief account of the fourteenth Congress of Prehistoric Archaeology held at Geneva is published in Athen. September 28, 1912, pp. 349-350.

GERMANY

MUSEUMS OF THE RHINE. — Reports of the acquisitions of the museums of Bonn, Trier, etc., together with an account of the excavations conducted under their auspices, also of the activities of sundry archaeological societies in the Rhineland, appear in the Bonn. Jb. 1911, Bericht, pp. 74-149.

BERLIN. - A Red-figured Lecythus. - In Ber. Kunsts. XXXIII, 1912, cols. 219-222 (3 figs.) Köster publishes a red-figured lecythus recently presented to the Berlin museum. It has represented upon it a bearded man wearing chlamys and petasus and holding two spears, seated upon a rock. In front of him stands Heracles who grasps him by the hand and tries to raise him from his seat. The artist evidently had in mind the story of the rescue of Theseus or Peirithous by Heracles in Hades. The vase resembles in style the work of the "Meister mit dem Kahlkopfe," but also shows differences.

An Etruscan Helmet. — In Ber. Kunsts. XXXIII, 1912, cols. 244-250 (3) figs.), B. Schröder publishes an Etruscan helmet from Lombardy recently acquired by the Berlin museum. On top of the helmet is the head and neck of a swan which supported the crest, while below, covering either side, is a swan's wing. In front, below a moulding, are two large eyes with eyebrows, and between them a mask with what looks like wings attached. At the back is another mask. The helmet dates from the end of the sixth or beginning of the fifth century. The writer also calls attention to another recent acquisition, — a Roman legionary helmet from Egypt.

Reminiscences of Eduard Gerhard. - The tribute paid to his old teacher, Eduard Gerhard, by the late R. Kekulé von Stradonitz, at the last meeting of the Berlin Archaeological Society at which he was present and presided (Winckelsmannsfest, December, 1910), has been printed as a separate pamphlet by G. Reimer of Berlin. The speaker gave his personal reminiscences of the founder of the society together with an account of his other services to archaeology, including the organization of the German Institute at Rome. (Arch. Anz. 1912, cols. 23-24.)

BRANDHOF. - Prehistoric Bronzes. - Near Brandhof an isolated grave of the early Hallstatt period has been found, containing several bronze objects, — bracelets, part of a girdle, etc. (E. Wagner, Röm.-Germ, Kb. V, 1912, p. 55.)

BRUMATH. - Roman Graves. - Seventeen Roman graves have been opened at Brumath. The pottery, consisting of urns, one-handled jugs, Belgian and sigilla ware, points to an early Roman occupation. (A. RIFF,

Röm.-Germ. Kb. V, 1912, p. 58 f.)

BURLADINGEN. — A Roman Fort. — Excavations near Burladingen. in a district which had yielded many Roman antiquities, brought to light remains of a stone fort, which occupied the site of an earlier entrenchment. Enough of the south wall was excavated to disclose its dimensions, and the praetorium and three of the gates were located. The width of the fort was 140 m. The length cannot be determined until the north wall has been

located. The ceramic finds show that the fort dates from 90-110 A.D. (G. Bersu, Röm.-Germ. Kb. V, 1912, pp. 65-70.)

ESCHWEILER HOF.—A Roman Pottery.—A factory for the manufacture of sigilla ware with a very well preserved kiln was recently discovered at Eschweiler Hof (near St. Ingbert). The pottery was placed in the Pfalz museum at Speyer. (F. Sprater, Röm.-Germ. Kb. V, 1912, p. 78.)

FRANKFORT.—The Gans Collection.—F. Gans, of Frankfort-onthe-Main, has presented to the Antiquarium at Berlin his entire collection, amounting to 643 numbers, of specimens of the minor arts of antiquity, consisting chiefly of gold objects and glass. The collection is valued at more than a million and a half marks. (Arch. Anz. 1912, col. 144.)

HALBERSTADT. — Origin of the "Spool" Handle. — A curious parallel in clay to the spool-shaped handles of the silver dove-vase from Mycenae, the gold cups from Vaphio, and other contemporary silver cups, whether from the graves at Mycenae or on Egyptian tomb paintings of about 1500 B.C., has appeared in the museum of Halberstadt. It came from an early bronze-age burial field at Nienhagen, in Saxony, and perhaps from the same grave as a handled pot which is of the type called Aunjetite, probably as early as 2000 B.C. This circumstance and a study of the form itself suggest that the handle of the clay cup is not modelled after a similar one in metal, but both are copied from an original in wood. (H. MOETEFINDT, Arch. Anz. 1912, cols. 99–104; 6 figs.)

KNIELINGEN. — Roman Graves. — In Röm.-Germ. Kb. V, 1912, p. 55 f., E. Wagner reports the finding of a number of Roman graves, dating from an early Roman occupation and containing urns and other pottery, glass ware and metal objects. Near-by graves were found from the La Tène period containing sundry bronze ornaments.

MAINZ. — Roman Gravestones. — At Weisenau near Mainz, four Roman gravestones were recently found. The inscriptions are published and discussed by Körber, Röm.-Germ. Kb. V, 1912, p. 75 f.

MUNICH. — Acquisitions in 1910. — The additions to the public collections of antiquities in Munich in 1910, some of which have been published elsewhere, are described by P. Wolters and J. Sieveking, and illustrated in Arch. Anz. 1912, cols. 104-110 (11 figs.). Among the works of sculpture are a nearly perfect though badly weathered Apollo statue somewhat later than the Apollo of Tenea; the gravestone of Mnesarete, a piece worthy to stand beside that of Hegeso, but slightly later; a funeral lecythus with figures in half relief, giving a plastic rather than the pictorial effect of earlier vases of the kind; a female head from an Attic relief, showing the earliest attempt to vary the traditional type by marks of age; a female panther, which apparently stood as a single figure on a funeral monument. There are five bronzes, including a pair of connected mirrors for giving double reflection; sixteen terra-cottas from Athens, Boeotia, Asia Minor, and Rome, consisting of heads, statuettes, vessels, and one relief; also a curious lead relief from Rome; and fourteen vases from Athens, Aegina, Boeotia, Corinth, Rhodes, and Crete.

NASSENFELS.—A Roman Gravestone.—A Roman gravestone with inscription found in the Roman cemetery near Nassenfels, Bavaria, is published by Winkelmann, Röm.-Germ. Kb. V, 1912, p. 77.

NEUWIED. — Recent Discoveries. — A preliminary report of excavations by E. RITTERLING at the Roman castellum at Niederbieber, not far from Neuwied, and lying between the Rhine and the limes as the latter approaches its western terminus at Rheinbrohl, is published in *Bonn. Jb.* 1911, pp. 259–278 (pl.; 3 figs.). It was one of the largest stations on the whole line of the limes, and was maintained from about 190–260 A.D. To this report H. Lehner adds a description of a number of the finds, chiefly articles in gold, silver, and bronze. (*Ibid.* pp. 279–285; 4 pls.; 4 figs.)

PLAIDT A. D. NETTE.—The Prehistoric Settlement.—Further excavations on the site of the prehistoric settlement near Plaidt (A.J.A. XV, 1911, p. 431) disclosed the fact that the settlement had been enclosed in two successive periods by elliptical trenches, partly open, and in part with a palisade. Additional dwellings and storehouses from the La Tène period

were discovered. (H. Lehner, Röm.-Germ. Kb. V, 1912, p. 53 f.)

SAALBURG. — Jupiter Column. — A fine reproduction and restoration of the Jupiter column now in the museum of Mainz has been placed on the Saalburg, near Hamburg. (Röm.-Germ. Kb. V, 1912, p. 64.)

TRÈVES.—Roman Kilns.—Two Roman kilns recently discovered near Trèves are described by P. Steiner, Röm.-Germ. Kb. V, 1912, p. 59.

AUSTRIA-HUNGARY

ARCHAEOLOGY IN HUNGARY IN 1911. — A summary of recent work in the Roman provinces of Dacia and Pannonia, by G. v. Finally, is published in Arch. Anz. 1912, cols. 526-546 (7 figs.). In Transylvania, at Carlsburg (Apulum), the Roman remains are now divided into four sections, the garrison camp, the earlier and later civil settlements (Municipium Apulense and Colonia Apulensis), and the street of tombs between these. Pottery found in the kilns is Roman in shape but of La Tène technique, hence is earlier than the occupation by Marcus Aurelius. A study of the capitals from Pannonia and Dacia in the museum at Apulum shows Doric and Tuscan, Corinthian and Egyptian styles, with Oriental influence, but no examples of Ionic or Composite. In the mining town of Zalatna (Ampelum) remains of the Roman mine shafts and a water reservoir were found. Further north, the garrison camp at Szamosujvár is identified as Congri. The foundations of round buildings found at Thorda (Potaissa) probably belong to wooden watch towers. A Roman villa at Klausenburg (Napoca) shows how the Romanization of the country had spread outside of the province. Of twenty Latin inscriptions from Dacia, about a third come from north of Klausenburg (dedications by Aelius Julius and P. Aelius Maximus) and the same number from in or near Varhély (Sarmizegetusa, capital of Dacia). Among the latter is a dedication to the moon-god Men and one to Caelestis Virgo, both new in Dacia. Others are dedications by Roman officers who are already known epigraphically. A number of medallion-shaped Roman gravestones from Dacia have been published. They have one or more portrait heads on a concave circular surface. In Pannonia a plan of the ruins at Dunapentele (Intercisa) has been made, but is somewhat incomplete owing to the depredations of plunderers. It shows that the military camp was on the north side and the necropolis on the south side of the hill, Öreghegy. The inscriptions include two

milestones, of Elagabalus and Gordian. A bronze statuette of a river-god belonging to a group of which the other figure is lost, may be the river Danube with the Tyche of Intercisa, after the model of the Antiochia and Orontes of Eutychides. Among the reliefs from some fourth-century graves, one gives a detailed rendering of the Pannonian woman's costume. Some bronze helmets found at Intercisa are made in halves joined by a ridge or crest which shows Greek rather than Roman models. Three reliefs with the Thracian horseman, one of them with a Greek inscription. are evidence of the wide range of this cult. Various Roman remains were found at Oedenburg, on the Neusiedler See (Scarbantia), and include dedications by three veterans of Italian, probably Campanian, birth. A very delicately carved gravestone bears the names of the wife and three children of C. Sextilius Senecio. Inscriptions, coins, etc., were found at Fünf-Kirchen (Sopranae), in southern Pannonia, and objects found in the barbarian tract between the Danube and the Theiss show an active Roman trade in this extra-provincial region. A study of the gold coinage of these provinces distinguishes several classes, of native, Bohemian, and imported impressions. The nations to the northwest imitated the gold coinage of Alexander, while the peoples of Hungary followed the earlier silver coinage of Phillip. The gold used for minting in the Danubian lands was taken as booty, as none is mined there.

CSOKLOVINA. — Diluvial Remains. — In Dolgozatok az Erdélyi Nemzeti Múzeum, III, 1912, pp. 201–249 (36 figs.), M. Roska describes his recent excavations in the cave of Cholnoky at Csoklovina, Hungary. Many stone implements, some objects of bone, and numerous remains of the cave bear were found. The objects belong to a transition period between Mousterian and Aurignacian.

RUSSIA

ARCHAEOLOGY IN RUSSIA IN 1911. — The results of excavations in Southern Russia in 1911, together with some acquisitions of the Imperial Museums from other sources, are described by B. Pharmakowsky in Arch. Anz. 1912, cols. 323-381 (74 figs.). The excavations were conducted in the Kuban region and at Kertch (Panticapaeum) by W. W. Shkorpil; at Chersonesus by R. C. Loeper and M. M. Petchowkin; in Tanais by W. W. Miller; in the interior of Tauris by N. J. Wesselowsky, and in Olbia by the writer. The cemetery on the peninsula of Taman, in the Kuban District, consists of simple shaft graves dating from the sixth century to Roman times. Many of them contain remains of food and almost all some of the small glass vessels known as Phoenician, which were a favorite article with Ionian colonists on the Pontus. The pottery is Corinthian, Ionian, and Attic, of all periods and shapes. A high-footed cylix, with simple decoration of bands and a rosette in dark glaze, has a double-axe irregularly painted in red on the outside. Other objects from Taman are a terra-cotta doll with movable arms and legs, and a spray of gold oak leaves and acorns, dated by a stater of Alexander the Great. Some elaborate gold objects, perhaps used as casings for glass vessels, are of the Roman period, about the first century A.D. They are supposed to have been found in the Kuban region. That the site of New Chersonesus was occupied as early as the sixth century is shown by the archaic terra-cottas found there. Other objects are a Megarian bowl, Hellenistic figurines, a Roman relief bowl, and Byzantine glazed vessels.

The remains on the site of Old Chersonesus give a good picture of the appearance of a Greek cleruchy. Three small bronze painter's tools, a sort of spoon and a blunt-pointed instrument in a bronze case, and another object like the second, with wooden handle and silver ornamentation, were found at Chersonesus. Objects from Panticapaeum were found chiefly in graves. most of which belong to the archaic period following 550 B.C.; but some are of Hellenistic date. Among them are a terra-cotta relief of an elephant, a small vase of Egyptian porcelain in the form of a bear with her young, a carnelian ring-bezel with a fine intaglio figure of a standing lion, dated by a pelice in the same grave as of the period 550-500 B.C.; several reliefs from the bottoms of cylices, one showing the head of a Silenus with thyrsus and cantharus, another the head of Selene; also several marble and limestone stelae with gables and panels in relief, one of them of colossal size. Two Panathenaic amphorae, one from Panticapaeum of the end of the sixth century and one from Tanais of the second half of the fifth, have pictures of musical contests on the reverse, an evidence that such contests received prizes. Brauchitsch's chronology of the prize amphorae, which excludes the fifth century, seems to be faulty. At Olbia, a second area was carefully excavated and the relations of the various strata studied. A square well at this spot belongs to the sixth layer from the top. The house of the fifth stratum had two periods, with floors at slightly different levels. The walls of the house of the fourth stratum rest directly on the upper of these pavements. The third stratum is dated by an inscription of the time of Alexander Severus, dedicating a temple to three pairs of divinities, Sarapis and Isis, Asclepius and Hygieia, and Poseidon and Amphitrite. There were probably three cellae. The earliest graves in the necropolis are of about 600 B.C. Before this time, as at Berezany, the dead were burned and the bones buried in jars among the houses. One grave contained seventeen pointed amphorae arranged in a circle around the ash-urn, the points inward. The grave of a little girl, with rich furnishings of ornaments and small vases, is dated at about 560 B.C. A circular space in the cemetery, surrounded with masonry and containing no graves, was probably a place for religious services. A set of four bronze goat's feet, found at Olbia, must have belonged to some piece of wooden furniture. An amulet of glass paste, in the form of a ram's head with a scorpion outlined on the flat end, suggests that the ram's head was apotropaic. A curious object found in a woman's grave is a sprinkler vase, from which, when filled by immersion, a shower could be dropped through the perforated bottom by unstopping the opening in the hollow handle. Some tumuli were opened in the Taurian Government. The horses here were not buried alive, as has been supposed by some to have been the custom. Bronze and silver horse trappings with plastic and incised decoration were found here and at other places. Two small bronze implements enclosed in wooden cases which fitted them exactly were found in the Government of Kiev. They may be primitive surgical instruments. The bodies in the graves of this region show signs of partial burning and seem to have been wrapped in a pelt. A vast quantity of imported pottery of all kinds was found on all sites, some of it being of great value and interest. Much of the Ionian pottery may have been made in Samos. small articles are many beautiful pieces of Greek and Roman goldsmith's work, the earrings being especially numerous.

GREAT BRITAIN

ARCHAEOLOGY IN GREAT BRITAIN IN 1911-1912. -- Excavations were carried on in 1911-1912 in Scotland at Cappuck, Corbridge, and Birdoswald; on the Yorkshire coast; and at Cartle Collen in Wales. Cappuck, on the Roman road formerly called Deer Street, running from York through Corbridge to Newstead on the Tweed, is about twenty-six miles from the latter place at the north foot of the Cheviot Hills. It has a small fort 60-70 metres, surrounded by an earth wall on stone foundation and a moat, these defences being strengthened on the east side where the entrance was. The enclosure contained a granary, a bath, a central building and apparently barracks. A corner has been washed away by the river Oxnam. The place seems to have been occupied first under Agricola and again in the latter half of the second century and abandoned about 180 A.D. Corbridge (Corstopitum) a horde of 159 gold coins, from Nero to Marcus Aurelius, was found buried in a court or house, and is now in the British Museum (A.J.A. XVI, p. 141). It is the largest find of the kind made in Great Britain except one at Cleeve Priory, about a hundred years ago. must have been buried at the time of an uprising in North Britain soon after 160 A.D., when the place was plundered and burnt, and it gives a date for the sherds found in the ruins of a pottery about five years ago. Of the two inscriptions found this year at Corbridge, one is a simple gravestone for Barathes of Palmyra, already known by the lavishly decorated monument that he erected for his wife, a British woman, at South Shields, some twenty-four miles away. He is now seen to have been a soldier and not a Syrian merchant. The other inscription is a military dedication to Sol Invictus, of about 160–165, with the name of the god erased, possibly at the time of the fall of Elagabalus in 222. Among the sculptures are a relief of a woman churning, in the attitude of a goddess pouring a libation on an altar, which is possibly a grayestone; part of a panel carved with a grapevine, and two badly injured slabs, with a satyr playing the double flutes and the wolf and twins. The road body in which they were found will be further searched. At Birdoswald (Amboglanna), in that section of Hadrian's Wall where a turf wall running near the river Irthing seems to have been replaced by a later stone wall on a different line, it has been assumed that the two periods were those of Hadrian and Septimius Severus, but objects found in the towers and stations of the outer wall are much earlier than Severus, and the question of date is again unsettled. The fort at the eastern end of Hadrian's Wall and one in the Wall of Antoninus have been found where they were supposed to be. On a cliff high above the sea near Saltburn, on the north coast of Yorkshire, a small stone fort, half of which has fallen into the sea with the wearing away of the cliff, has been excavated, and from the coins and sherds found is seen to belong to the last years of the fourth century. Similar fortified posts at Peak on Robin-Hood's Bay, at Filey and near Whitby, evidently were parts of a guard system for watching the approach of a foe by sea. Excavations at Collen in Wales were not very profitable because not scientifically carried on. Better results are expected from the complete and systematic excavation of the Roman-British settlement of Viroconium at Wroxeter, near Shrewsbury. This was at first a garrison post for the Legio XIV Gemina and later a civilian

town, the capital of the Cornovii. (F. Haverfield, Arch. Anz. 1912, cols.

483-496; 10 figs.)

LONDON.—Greek Coins acquired by the British Museum. — The late Warwick Wroth was in the habit of contributing to the *Num. Chron.* descriptions of recent acquisitions of coins by the British Museum. The last of his articles covered the year 1904. A new series has now been begun by G. F. Hill, who describes a selection of the acquisitions made during the six years 1905–1910, and intends to carry on the series with regularity. The present publication is of thirty-one specimens, from various localities. (*Num. Chron.* 1912, pp. 134–148; 2 pls.)

The Dispater of Vienne (Isère).—The Dispater found in 1866 at Vienne and published in the Gazette Archéologique in 1887, after which it disappeared, was sold (No. 364 of catalogue, inset illustration) July 1, 1912, at the sale of the collection of Mr. John Edward Tylor in London. It was formerly in the Wills collection which was sold in 1894. The Dispater went to an unknown amateur for \$8000 or more. (S. R., R. Arch. XX, 1912,

p. 173.)

AFRICA

ARCHAEOLOGY IN NORTH AFRICA IN 1911.—In Arch. Anz. 1912, cols. 381-403 (8 figs.), A. Schulten publishes a general survey of archaeology in North Africa in 1911.

ALGERIA.—Report of an Expedition in 1912.—In C. R. Acad. Insc. 1912, pp. 335–338, R. Basset reports upon an expedition made by Boulifa among the Kabyles in 1912. He discovered another Libyan stele with an inscription in two lines, and six small fragments of Latin inscriptions.

AMMAEDARA.—Recent Excavations.—In Mél. Arch. Hist. XXXII, 1912, pp. 69-229, A. PIGANIOL and R. LAURENT-VIBERT make an elaborate report upon recent investigations at Ammaedara (Haidra), a colony in the Roman province of Africa. The history of the town is outlined, existing ruins described, and upwards of two hundred and thirty new inscriptions

published.

CARTHAGE. — The Island of the Admiral. — In C. R. Acad. Insc. 1912, pp. 277–286, A. Merlin gives an account of the excavations of Captain Chardenet on the little Island of the Admiral at Carthage. There were, as Beulé discovered, two surrounding walls about 7.50 m. apart, in places connected by cross walls. The inner wall does not completely surround the island but bends back on the south side. In the middle of the island a number of squared pillars with masons' marks upon them were found. These belonged to the foundations of Carthaginian buildings as the Phoenician letters on some of them show. The other remains unearthed were very scanty.

A Corinthian Amphora. — In C. R. Acad. Insc. 1912, pp. 341-344 (fig.), D. Anziani publishes a Corinthian amphora 35 cm. high recently found in a tomb dating from the sixth century B.c. in the cemetery of Bordj-Djedid at Carthage. This is the only large Corinthian vase yet found at Carthage.

HENCHIR-BELLONE. — A Latin Inscription. —In B. Soc. Ant. Fr. 1912, pp. 236-237, P. DE LESSERT publishes a Latin inscription dating from the year 228 A.D. in which the formula dedicata ex VI kal. jan. occurs.

MEDEINA.— Recent Excavations.—In C. R. Acad. Insc. 1912, pp. 417-426, A. MERLIN reports upon the excavations made last spring at Medeina, the ancient Althiburos. In the northeast part of the forum a series of small buildings was uncovered. To the southwest a road with a monumental gateway at each end led to the capitol. An inscription shows that one of the gates was erected in honor of Hadrian. About 30 m. south of the forum was a large structure, which was, perhaps, a fountain.

SAHEL.—A Recent Expedition.—In Arch. Miss. N.S. 4, 1911, pp. 17–52, F. DE ZELTNER reports upon an expedition made by him in the country between Kayes and Timbuctoo. Starting from the colony of Haut-Sénégal-Niger, he went to Nioro, then to Goumbou, Sokolo, and Niafunké, and by boat to Timbuctoo. He calls attention to the prehistoric remains, especially the cave paintings in the valley of the Senegal. They are in the front part of the caves and consist of scenes in red ochre representing men and horses; also squares and dots. Jackals or dogs are found painted in white, and hands in silhouette. Dark blue, black, and, rarely, pink were also used. The writer discusses the anthropology of the region, the various local industries, dress, ornaments, etc.

THAPSUS.—Phoenician Cemeteries.—In Mel. Arch. Hist. XXXII, 1912, pp. 245–303, D. Anziani describes his recent excavations in the Phoenician cemeteries on the Tunisian coast between Thapsus and Acholla, the most important group of Phoenician tombs after that of Carthage. He supplements earlier incomplete reports, and is able to arrive at some definite conclusions with respect to the historical development of this district.

THUBURBO MAJUS.—Recent Discoveries.—In C. R. Acad. Insc. 1912, pp. 347–360 (3 figs.), A. Merlin reports upon the recent excavations of L. Drappier at Henchir Kasbat, the ancient Thuburbo Majus. Building G was a temple of Saturn as an inscription shows. It stood within an enclosed precinct. Building F, at a distance of about 150 m., was more completely excavated. It was originally a temple, probably dedicated to Baal-Saturn and Tanit-Ceres, and in later times transformed into a Christian church. There was an open court with Doric porticoes on three sides, and at the back a chamber 6 m. square which was the sanctuary. An interesting ex-voto was found in the form of a small temple, Hellenic and Oriental in character. On the façade was a Phoenician inscription in three lines, now almost wholly destroyed. In front of the entrance to the church were four column bases arranged in a square, and within, a woman's tomb. A necklace of gold pendants and glass beads alternating, two earrings, a ring, and two fibulae were found in the tomb.

UNITED STATES

BOSTON. — An Exhibition of Electrum Coins. — In B. Mus. F. A. X, 1912, pp. 38-41 (46 figs.), L. D. C(ASKEY) gives a general account of electrum coinage in calling attention to 367 electrum coins recently put on exhibition in the Boston Museum of Fine Arts. They are chiefly from Cyzicus, Lydia, Lesbos, and Phocaea. The majority came from the Warren collection, of which 1432 specimens were acquired by the Museum.

EARLY CHRISTIAN, BYZANTINE, MEDIAEVAL, AND RENAISSANCE ART

GENERAL AND MISCELLANEOUS

CHRISTIAN AND BYZANTINE INSCRIPTIONS.—In 'A $\rho\chi$.' E ϕ . 1911, pp. 97–107 (supplementary note p. 245), N. A. Bey publishes new readings for fifty Christian and Byzantine inscriptions.

GAPPADOCIA.—Byzantine Churches and their Iconography.—G. D. JERPHANION contributes to C. R. Acad. Insc. 1912, pp. 320-326, an account of his archaeological exploration of Cappadocia, enumerating the unknown churches which he visited, and describing their frescoes, one of which, a Crucifixion at Soghanle, he is inclined to ascribe to the eighth century. Ibid. pp. 326-336, G. Millet points out the importance of these discoveries from the point of view of the historian of Byzantine art and iconography, showing that the art of Cappadocia up to ca. 1000 was impregnated with the Oriental style, which was gradually supplanted by the Hellenistic art of Constantinople in consequence of the Byzantine conquests in Asia in the tenth century.

CONSTANTINOPLE.—A Byzantine Temple.—Some Turkish workmen, while digging a canal near the mosque of Mohammed the Conqueror, in Stamboul, unearthed a number of remains which have been identified as belonging to a Byzantine temple. Well-preserved capitals with reliefs of Greek crosses were found, as well as a number of columns, and parts of the walls of the temple. The digging went on for a number of days without competent supervision, and when the director of the museum was at last informed of the discoveries, it was found that a number of valuable objects had already disappeared. (Nation, October 17, 1912, p. 368.)

SAMARRA. - Early Mohammedan Art. - The history and remains of Samarra on the Tigris, two days' journey north of Bagdad, were described and pictured at the April (1912) meeting of the Berlin Archaeological Society, by E. Herzfeld and F. Sarre, who carried on explorations there in 1907-1908 and 1911. The city was founded in 836, by the second son of Harun-al-Rashid, who got into difficulties with the populace of Bagdad, and after a phenomenal growth and an equally rapid decay under his successors, it was abandoned in 876. Thus its material remains, belonging to a single period of forty years, must present an unmixed picture of early Islamic art and customs, from which the degree of Hellenistic influence at that period can be studied. They form the largest ruined site known. The work of excavation in 1911 was spent upon the great mosque, the largest in existence (flat roof, mosaic floors, walls covered with glass mosaic on gold ground); on some twenty private houses, a fortress on the river bank with the tombs of three of the Caliphs; and a huge palace, in the southern part of the city, which was a sort of camp-palace, modelled after a Roman cohort's quarters in a legionary camp, like the palaces of the earliest Islamic times, near Babylon and elsewhere. (Arch. Anz. 1912, cols. 135-139.)

WORKS OF NICCOLO ALUNNO. — In *Boll. Arte*, VI, 1912, pp. 248—262, U. Gnoli describes a number of unknown or undetected works of Niccolo Alunno. He points out that two panels of the predella of Niccolo's triptych in the Pinacoteca Vaticana are to be found in a little Ascension in

the museum of Compiègne and a "Presepio" in Moulins. The panels which originally adorned the lateral pinacles are in the museum of Tours. Other decorative panels of the triptych are to be found in Caen and elsewhere. The writer adds to the $\alpha uvre$ of Niccolo a "Pentecost" in the episcopal palace of Camerino, a standard in the possession of the Contessa Crivelli in Snaseverino (Marche), and another standard in S. Maria Maggiore at Bettona. The article closes with a list of lost works by the painter.

ITALY

BRESCIA.—The Discovery of Raphael's First Altarpiece.—In 1500 Raphael undertook, with Evangelista di Pian di Mileto, an altarpiece,



FIGURE 5. - RAPHAEL. ANGEL. BRESCIA.

"The Coronation of S. Niccolò di Tolentino" for the church of S. Agostino in Città di Castello. The picture in time came into the possession of Pius VI, a copy by Constantini being left in Città di Castello. At the taking of Rome by the French in 1798 the picture, which was already in fragments, was lost. Raphael's drawings for various figures of the picture are preserved in Lille, Oxford, and the British Museum, and have long been known. It is not known, however, that portions of the original still exist, viz. the figure of God holding the crown at the top of the picture, which is in the



FIGURE 6. - RAPHAEL. GOD THE FATHER AND THE VIRGIN. NAPLES.

Naples museum, and the head of an angel in the Galleria Martinengo at Brescia, there ascribed to Timoteo Viti. Neither of these fragments shows any trace of the assistance of Evangelista, and it is probable that his part in the work was limited to details like the architecture. (O. FISCHEL, Jb. Preuss. Kunsts. XXXIII, 1912, pp. 105–121.) Further articles supplementing Fischel's discovery are contributed to Boll. Arte, VI, 1912, pp. 329–339, by Corrado Ricci, G. Zappa, and V. Spinazzola. The picture in Brescia was cleaned in consequence of Fischel's article, and as a result the wings of the angel may now be seen, and in the upper left-hand corner a portion of

S. Niccolô's book. Another fragment, the upper part of the figure of the Virgin extending a crown, has been found in the Naples museum. The recovered fragments may be seen in the accompanying illustrations (Figs. 5 and 6). Ricci points out that the lack of distinctively Peruginesque qualities bears out the theory that Raphael worked first with Timoteo Viti.

BOLSENA.—A Barbarian Cemetery.—Behind the church of S. Cristina there was recently brought to light a series of tombs of the fifth or sixth century, forming a cemetery the limits of which were marked by columnar cippi, of which fragments were also discovered. The tombs are constructed of blocks of tufa cemented with plaster and paved with tiles. The bodies were oriented with the feet towards the east. Some weapons and ornaments were found, among them gold earrings with filagree decorations. (E. Galli, Boll. Arte, VI, 1912, pp. 345–353.)

A. Muñoz, in a supplementary article to his discussion of the fragments of monuments of Old St. Peter's existing in this locality (cf. A.J.A. XVI, 1912, p. 147), points out that the statue of St. Andrew now in the Metropolitan Museum in New York once formed part of the altar erected in the basilica by Guglielmo Perrier in 1491. The Madonna and two angels existing in the Simoncelli chapel at Bauco belonged originally to the tomb of Ardicino Della Porta (d. 1493) in St. Peter's. (Boll. Arte, VI, 1912, pp. 239-245.)

CARPI.—The Frescoes of the Cappella Pio.—The history of the erection and spoliation of the Cappella Pio at Carpi forms the subject of an article by P. Foresti in Boll. Arte, VI, 1912, pp. 303–322. He describes at length the frescoes of the chapel, which represent scenes from the life of Christ and the Virgin, shows that they are clearly the work of Loschi, the court painter of Prince Alberto Pio, the builder of the chapel, and reconstructs the biography and the œuvre of this Parmesan painter.

DOVERA.—A Langobardic Tomb.—A Langobardic tomb has been discovered at Dovera, with iron weapons and a round shield; also a Gallic tomb, with vases and small bronze and glass ornaments. (G. Patroni, Not. Scav. IX, 1912, pp. 6-7.)

FLORENCE. — Niello Proofs in the Marucelliana. — In Boll. Arte, VI, 1912, pp. 231–238, P. N. Ferri publishes the series of niello proofs or imitations thereof existing in the R. Biblioteca Marucelliana at Florence.

Newly Discovered Frescoes. — Frescoes of the fourteenth century have recently been discovered in the church of S. Agostino at Florence. One represents the Birth of the Virgin, another the Annunciation. (Rass. d'Arte, XII, 1912, Aug.—Sept., p. 1.)

FOLIGNO.—La Maestà Bella.—In Gaz. B.-A. VIII, 1912, pp. 131–136, P. Pouzer publishes a description and some good reproductions of the fresco in the wayside shrine at Foligno, which passes under the name of the "Maestà bella." It represents the Madonna between Saints John Baptist and the Evangelist. The author is Pier Antonio de Mezzastis, who was a pupil of Benozzo Gozzoli.

MILAN. — Discovery of Frescoes. — Removal of the whitewash in the chapel of S. Michele in the church of S. Pietro in Gessate has brought to light a series of frescoes, three of them representing episodes in the life

of the Baptist, which are attributed to Butinone, Zenale, and to Giovanni Donato da Montorfano—the same artists who decorated the neighboring Capella Griffi and the chapel of S. Antonio Abbate. (Rass. d'Arte, XII,

1912, July, p. I.)

A Portrait of Borso d'Este.—A portrait in the Trivulzio collection, Milan, is identified as the likeness of the Duke of Ferrara by F. Malaguzzi Valeri (Rass. d'Arte, XII, 1912, pp. 101-103), by comparison with the portrait of the duke in the frescoes of the Palazzo Schifanoia at Ferrara, and the painter of the picture is, according to the writer, the

court painter Baldassare da Reggio.

The Identity of the Pseudo-Boccacino Discovered.—In Rass. d'Arte, XII, 1912, pp. 99–100, F. Malaguzzi Valeri publishes a small panel with the heads of two apostles in the collection of Carlo Bazzero in Milan, which shows an evident relation with the works of the Pseudo-Boccacino, and is the original of the copy in Nürnberg published by Frizzoni (ibid. 1909). The panel, moreover, is signed: IOHES AVGVSTINVS LAVDESIS. P. (Iohannes Augustinus Laudensis pinxit). The painter, thus baptized into Giovanni Agostino of Lodi, shows an evident derivation from Bramante.

Acquisition of the Poldi-Pezzoli.—The Poldi-Pezzoli gallery has recently placed in its Venetian room a beautiful Madonna by Cavazzola. The picture is described by G. Frizzoni in Rass. d'Arte, XII, 1912, pp. 117–122. The writer adds a brief account of the other paintings of this department of the gallery.

NORCIA.—An Annunciation by Giovanni della Robbia.—Two glazed terra-cotta figures of the Virgin and an Angel, in the Church of the Annunziata, near Norcia, are assigned on internal evidence to Giovanni della Robbia, by F. Mason Perkins in Rass. d'Arte, XII, 1912, pp. 78-79.

RAVENNA.—A Porphyry Statue and a Head in Venice.—In Burl. Mag. XXII, 1912, pp. 147-153, Sir Martin Conway publishes a headless porphyry statue in the Archbishop's Museum at Ravenna, representing some personage of the time of Constantine, which he believes to be an Eastern emperor. A head, also of porphyry, crowned with a gemstudded diadem, adorns the corner of a balustrade of St. Mark's at Venice, where it is commonly known by the epithet "Carmagnola's Head." The proportions seem to be those of the Ravenna torso, and it is quite possible that the fitting of a cast of the head to the shoulders of the statue would restore a valuable portrait statue of the later Empire.

RIVIERA DI CASTELFIUMANESE.—A Madonna by Iacopo Bellini.—The painting of a Madonna by Jacopo Bellini in Riviera di Castelfiumanese (Fig. 7), in tempera on canvas applied to a panel, is signed with an inscription in hexameter verse which was only recently noticed. It reads: HAS DEDIT INGENVAS BELINVS MENTE FIGURAS. The apse of the local church, in which the picture is now kept, has a fresco representing the Visitation, by the painter Pier Paolo Agabiti. (C.

Ricci, Boll. Arte, VI, 1912, pp. 289-290.)

ROME.—A Third-century Baptistery.—In demolishing a portion of the old Palazzo Costa, close to the Church of St. Marcellus, workmen have brought to light many fragments of inscriptions, among them one attributed to Pope St. Damasus. Considerably below the level of the city,

walls were discovered which appear to date from the third century A.D., and perhaps belonged to a baptistery. (Nation, November 14, 1912, p. 468.)

The Mediaeval Pantheon. — Investigations by A. Muñoz have brought to light a number of fragments of the decoration of the Christian Pantheon



FIGURE 7. - IACOPO BELLINI. MADONNA AND CHILD.

in the Middle Ages. These fragments are of two periods, one set belonging to the eighth or ninth century, and consisting of remains of chancel balustrades of pavonazzetto, carved from blocks of the old marble veneering of the Pantheon of Hadrian. The other set consists of colonnettes, a ciborium, cornices with mosaic decoration, and the twisted columns which are now in

the tabernacle of the apse. Some tomb-slabs were also found and the remains of a fourteenth-century fresco. (N. Bull. Arch. Crist. 1912, pp. 25-35.)

S. POLO DEI CAVALIERI.—A Mediaeval Madonna.—In the campanile of the local church at S. Polo dei Cavalieri was recently discovered a Madonna and Child carved in wood, which was afterward covered with canvas and painted, traces of the paint still remaining on the dress of the Child. The statue dates in the early thirteenth century and shows evidence of French derivation. (E. Ege, Boll. Arte, VI, 1912, pp. 342–344.)

S. SEVERINA IN CALABRIA. — Unpublished Monuments. — In Boll. Arte, VI, 1912, pp. 181–198, 217–230, 263–284, P. Orsi publishes a monograph on the monuments of the little-known village of S. Severina in Calabria. After sketching the history of the place, which seems to begin with the eighth century, the writer describes the baptistery, an interesting and well-preserved rotonda of the eighth or ninth century, the old cathedral, which appears, in the light of a Byzantine inscription hitherto unknown, to have been dedicated by a certain bishop, Ambrosius, in the year 1036, the new cathedral, with its pulpit ornamented with a fifteenth-century relief representing Christ among the Doctors, and minor edifices and works of sculpture.

SARDINIA. — Artistic Monuments. — W. Biehl contributes to Z. Bild. K. XXIV, 1912, pp. 17-24 and 26-32, a rather summary description of the monuments of Sardinia which are of interest to the student of art. The most important are: the churches of S. Nicola di Silanus, S. Giusta at Oristano, SS. Trinità di Saccargia near Codrongianus, S. Pietro di Immagini near Bulzi, and S. Pietro at Zuri; a relief of Daniel in the Den of Lions of the twelfth century from the cathedral of Oristano, the carved chancels of the cathedral of Cagliari, originally in Pisa, another chancel in the portico of S. Michele at Cagliari, a Pisan polyptych of the fourteenth century in the Cagliari museum, another in the choir of the church of S. Maria del Regno at Ardara (by Giovanni Muru, 1515), another in Castel Sardo, and a marble tabernacle in the church of S. Giusta at Oristano.

SIENA.—The Mostra di Duccio.—An account of the exhibition of the works of Duccio and of his followers which was held recently in Siena is given by G. DE NICOLA in Burl. Mag. XXII, 1912, pp. 138–147, in the course of which the writer makes some interesting attributions. Of the works at the Exposition he gives but one new one to Duccio—a Madonna in the church of S. Maria at Montepulciano. Three works appeared in the collection which may be classified as of Duccio's school: a Madonna from Asciano, a "Mater Misericordiae" of the Pieve of Vertine, and the fine triptych representing the Madonna with Saints, the Coronation, Annunciation, and three scenes from the Life of Christ, which is in the Galleria di Siena. To Ugolino the writer ascribes a Madonna in the possession of the Compagnia della Misericordia of S. Casciano, while assigning a number of paintings to his school.

SPAIN

DRAWINGS BY SPANISH ARCHITECTS.—The King of Spain has recently donated to the Pedagogical Bureau of the Museums and Libraries of Spain a set of drawings which disappeared at the time of the burning of the old Aleazar of Madrid in 1734. The majority are plans for the

Escurial, but two are of particular interest. They are the work of the architect of Charles V, Pedro Machuca, and furnish us with a detailed plan of the Alhambra at least two hundred and fifty years earlier than any other plan known. (H. Saint-Edme, Chron. Arts, 1912, p. 171.)

BARCELONA. — A Byzantine Statue. — A fisherman of Barceloneta, near Barcelona, recently found in his net a magnificent marble statue of the Virgin, represented as protecting three children, of Byzantine workmanship. It is believed that the statue is one of those brought to Spain by the soldiers of Don Juan of Austria after his expedition against the Turks. (Rass. d'Arte, XII, 1912, p. II, Aug.—Sept.)

FRANCE

TWO SIGNED PAINTINGS OF CORNEILLE DE LYON.—In Mon. Piot, XVIII, 1910, pp. 125-144 (2 pls.; 14 figs.), F. de Mély publishes two paintings of which several replicas are known, one representing a Banker and his Wife, now in the collection of Prince Hohenzollern-Sigmaringen; and the other an Accountant in the collection of Baron Oppenheim of Cologne. They have been attributed to Quentin Matsys and Marinus. The first bears the name Cornelis van der Capella, and the second Corneille de la Chapelle. This was the famous Corneille de Lyon, painter to Henri II, François II, Charles IX, and Catherine de Medicis, of whom no painting was definitely known to exist.

BOURBON-LANCY.—A Merovingian Cemetery.—Recent excavations at Bourbon-Lancy (Saône-et-Loire) have brought to light sixteen sarcophagi of the Merovingian epoch, of which two only were intact and contained skeletons. A number of gold and silver ornaments were found, together with some coins, among them a fine piece of Faustina Augusta.

(Chron. Arts. 1912, pp. 214-215.)

PARIS.— New Acquisitions of the Louvre.— A. MICHEL continues his discussion of the sculptures recently added to the collections of the Louvre in Gaz. B.-A. VIII, 1912, pp. 17-34 and 295-318 (see A.J.A. XVI, 1912, p. 457). The most important pieces mentioned are: a polychrome stone Virgin of the Annunciation from the south of France, of the fifteenth century; a stone bas-relief representing the Combat of St. George and the Dragon, Nivernais of the fifteenth century; a polychrome stone Virgin and Child, from the east of France, ca. 1550; another marble Madonna of the same period from St. Florentin; a medallion in marble representing Charles IX or Henri III, from the atelier of Germain Pilon; and a series of portrait and other statues of the modern epoch.

A Virgin and Child of the Fourteenth Century.—In Mon. Piot, XVIII, 1910, pp. 117-124 (2 pls.; 3 figs.), A. MICHEL publishes a seated figure of the Virgin and Child recently acquired by the Louvre. The Virgin is crowned, and with her left hand supports the Child, who, attired in a long dress, is standing on her knee. With his right hand he caresses his mother's chin, and with his left takes a bird which she offers him. The group is said to have come from the vicinity of Joigny. He also publishes a standing Virgin and Child, acquired by the Louvre in 1905, which retains some of its original color. Both are charming pieces of French sculpture of the early part of the fourteenth century.

SAINT-ARMAND.—A Portrait of Charles d'Amboise.—There was recently discovered in an out of the way corner of the Mairie of Saint-Armand (Cher) a portrait on wood of a personage who seems to be identical with the Charles d'Amboise, governor of Milan under Louis XII, whose portrait by Andrea Solario hangs in the Louvre. The new portrait is signed: Bernardinus de Comite, pinxit, 1500, 18 aug. This Lombard painter was born at Pavia, and his career can be traced from 1499 to 1522. A portrait of a Cardinal by him is in the Berlin gallery. (Chron. Arts, 1912, pp. 214 and 246.)

BELGIUM

BRUSSELS. — Acquisitions of the Museum. — The Brussels gallery has recently acquired: a Temptation of St. Anthony, by Lucas of Leyden; an Apollo and Diana, by Cranach the Elder; an Adoration of the Magi, by Peter Brueghel the Elder; an Annunciation, by the Maître de Flémalle; and other later paintings of minor importance. (P. BAUTIER, Rass. d'Arte, XII, 1912, pp. 107–1111.)

GERMANY

BERLIN.—A New Rembrandt Drawing.—L. Burchard publishes in Jb. Preuss. Kunsts. XXXIII, 1912, pp. 173-175, a drawing recently acquired by the Berlin museum, which is a study for the famous Rembrandt

Susanna and the Elders, in the Berlin gallery.

A Picture by Goosen van der Weyden. — In Burl. Mag. XXII, 1912, pp. 26-32, G. H. de Loo gives a résumé of his researches on the subject of Goosen van der Weyden, grandson of Roger, which will be published later in extenso in Jb. Preuss. Kunsts. He has succeeded in identifying one picture by this artist, a Madonna with Donors in the Kaiser Friedrich Museum. It was painted between 1511 and 1515 to commemorate the donation of the estate of Calmpthout to the abbey of Tongerloo. Affinity in style between this picture and the great altarpiece representing the legend of St. Dymphna, recently in this abbey, convince the writer that the latter work is also by the artist. This work, painted in 1505, is the first work of certain date produced in Antwerp in the sixteenth century, and, therefore, of prime importance for the history of the Antwerp school.

A New Donatello. — In Jb. Preuss. Kunsts. XXXIII, 1912, pp. 225-228, W. Bode suggests that the Madonna and Child, a statue of three-quarters life size, acquired by the Kaiser Friedrich Museum in Florence in 1893, is a youthful work by Donatello. For comparison he cites two of the

prophets on the Duomo, and the David in the Bargello.

Papal Busts by Bastiano Torrigiani.—In Jb. Preuss. Kunsts. XXXIII, 1912, pp. 252–274, G. Sobotka solves the riddle of the authorship of the well-known bust of Gregory XIII in the Berlin museum, by establishing its community of origin with a bust of Sixtus V in the Royal Palace. This in turn is clearly by the same hand as another portrait bust of the same Pope in the cathedral of Treja Macerata, whose authentic history may be traced back to the hand of Bastiano Torrigiani.

Acquisitions of the Kaiser Friedrich Museum.—The Kaiser Friedrich Museum has recently added to its collection: an early seventeenth-century copy of a Crucifixion by Grünewald (Ber. Kunsts. XXXIII, 1912,

cols. 137-142); a number of Italian plaquettes, among them a Doubting of Thomas by Valerio Belli; a Christ statuette in bronze by Andrea Pisano (?) (ibid. cols. 239-244); fragments of early mediaeval Italian decorative sculpture; a twelfth-century relief from Italy, representing a Pope; a fourteenth-century Cosmatesque reclining Madonna and Child in marble; a late fourteenth-century double capital in marble, Italian Gothic, with scenes from the life of Mary (ibid. cols. 261-279); a Burgundian triptych, ca. 1400, representing the Trinity and the Four Evangelists; a diptych from the Weber collection, the Martyrdom of St. Sebastian, German, ca. 1490; and a series of gifts to the museum by friends of Dr. Bode on the fortieth anniversary of his appointment to the museum staff, viz. a polychrome Madonna in stucco, Sienese of the second half of the fifteenth century, an early sixteenth-century bronze statuette of David, a Wedding Procession by Magnasco, a male portrait by a pupil of Dürer, a Trophies of the Chase by Albert Cuyp, an Abraham and Hagar by Nicolaes Maes, a relief of the Madonna, terra-cotta, by Niccolo dell' Arca, a fifteenth-century terra-cotta statuette of the Madonna of the Sienese school, three painted stucco replicas of German bronze reliefs of the fifteenth century, a bronze statuette of the Madonna, probably by Ercole Ferrata, etc. (ibid. cols. 285-312).

BURG LICHTENBERG. - Repairs to the Castle. - The ruins of the very extensive castle of Lichtenberg, near St. Wendel, some distance southeast of Trier, have recently been carefully strengthened and secured against further decay. (v. Behr, Bonn. Jb. 1911, pp. 9-28 of the Bericht;

3 pls.; 19 figs.)

LEIPZIG. — A Drawing by the Hausbuchmeister. —In the Kunstgewerbemuseum at Berlin is a series of four painted glass panes, each displaying a coat of arms surrounded by four lunettes adorned with little scenes. The cartoon for one of these is in the collection of F. Becker in Leipzig, and shows clearly the style of the Hausbuchmeister. The drawing, some details of which have been changed in the glass, dates from about 1485. (F. BECKER, Z. Bild. K. XXIII, 1912, pp. 219-222.)

MUNICH. — A New Velasquez. — The picture now in the possession of Julius Böhler in Munich, which bears the title "Young Woman of Madrid," was originally in a private collection in Milan, and assigned to an "unknown master." A. L. MAYER, in Z. Bild. K. XXIV, 1912, p. 41,

assigns it on internal evidence to Velasquez.

AUSTRIA-HUNGARY

VIENNA. - Identification of a Portrait in the Imperial Gallery. - A portrait of a Nürnberg patrician, dated 1520 and signed with the monogram HB, is identified by E. REICKE, Jb. Kunsth. Samm. 1912, pp. 228-255, as the likeness of Hans Pirkel, the painter being Brosamer. A replica of the picture in the library of Nürnberg, signed with the Dürer monogram, is a forgery of about 1600.

RUSSIA

PULTAVA. - Byzantine Treasure. - At Molaja Bereshtshabina, a village of the district of Pultava, Russia, some children discovered in the summer of 1912 a great treasure of gold and silver. The gold objects alone weigh over 50 kilograms, and number over 400. A silver plate with Sassanide decoration belongs to the fourth century, a necklace of gold pieces to the seventh. The treasure was probably plundered from the sack of some Greek city. (S. R., R. Arch. XX, 1912, p. 297, after the Neue Freie Presse, September 13, 1912.)

GREAT BRITAIN

TWO FLORENTINE CASSONE-FRONTS. — These panels are now in the possession of Sir Hugh Lane. They were evidently painted by the same master, and represent respectively the Battle of Anghiari and the Taking of Pisa by the Florentines. Details of the latter picture show that the panels were done toward the middle of the fifteenth century. P. Schubring, who describes them in Burl. Mag. XXII, 1912, pp. 158–165, does not attempt to define very closely their artistic position, contenting himself with pointing out analogies to the work of Ucello Baldovinetti, Lorenzo Monaco, and the Sienese school.

A PICTURE BY SASSETTA.—In Burl. Mag. XXII, 1912, p. 131, R. FRY publishes a very interesting panel in the collection of the Marchioness of Crewe, representing the "Journey of the Three Kings." The picture has been ascribed traditionally to Ucello, but in the opinion of the writer is better given to the Sienese.

LONDON.—Italian Sculpture at the Burlington Club.—A brief account of the Spring Exhibition of Italian Sculpture at the Burlington Fine Arts Club appears in the Burl. Mag. XXI, 1912, pp. 278–284, contributed by A. M. Daniel. The chief works noted are: a stucco replica from Birmingham of Donatello's relief of the Crucifixion in the Bargello; a marble relief of the Virgin and Child with Angels, perhaps an early work of Agostino di Duccio; a terra-cotta relief of the Madonna with Six Angels in the Morgan collection, ascribed to Luca della Robbia; a stucco Madonna in the collection of Mr. Diblee; two bronze putti of the school of Donatello; and a Nude Slave in terra-cotta, in the collection of Mr. Oppenheimer, evidently done under the influence of Michelangelo. Further notes on the exhibition are given by P. Schubring, Z. Bild. K. XXIII, 1912, pp. 301–308.

REPTON.—Remains of a Norman Building.—In Athen. August 17, 1912, p. 170, J. C. Cox reports the partial excavation of a building of Norman date at Repton. Potsherds were found to prove the Roman occupation of the site.

AFRICA

CARTHAGE. — Excavations at Damous-el-Karita. — In C. R. Acad. Insc. 1912, pp. 460-476 (12 figs.), Father Delattre reports upon the recent excavations at the basilica of Damous-el-Karita, Carthage. In the wall facing the road which runs through the ruins was a series of chapels, of which two were opened. They contained sarcophagi with women's remains. A large vaulted tomb approached by a stairway had the floor divided into seven compartments. A circular structure, 9.15 m. in diameter, was cleared. It had, surrounding it, columns, sixteen in all, alternating with niches, and a floor of mosaic with large slabs about it. There were corridors on opposite sides connecting with it by stairways of nine steps. This rotunda was,

perhaps, originally a baptistery. A number of inscriptions, one in mosaic, were discovered.

DRA-BEN-JOUDER. - An Epitaph. - In B. Soc. Ant. Fr. 1912, pp. 237-239, P. Monceaux publishes a fragmentary epitaph recently found at Dra-Ben-Jouder, Tunis, beginning, Gloria in [ex]selsis (sic) deo. beginning of the song of the angels has often been found on architectural fragments, but not before on a tombstone.

UNITED STATES

BOSTON. - Acquisitions of the Museum of Fine Arts. - The Museum of Fine Arts has recently acquired: a collection of Russian crucifixes and icons; a Portrait of a Lady by Maes (B. Mus. F. A. X, 1912, pp. 21-23; a triptych of 1511 by the Master of St. Severin, of the Cologne school (ibid. pp. 25-27); and a Portrait of a Lady by Lucas Cranach the Elder

(ibid. p. 10).

NEW YORK. - Acquisitions of the Metropolitan Museum. -Recent acquisitions of the Metropolitan Museum include: a Pietà by Moretto da Brescia (B. Metr. Mus. VII, 1912, pp. 112-113); a polyptych, ca. 1500, of the Bruges school representing scenes from the life of St. Godeliève; a relief by Donatello representing the Madonna and Child (ibid. pp. 126-130); a Portrait of a Man by Conrad von Creuznach; a German Altar-shrine with painted doors, ca. 1500 (ibid. p. 136); a painting by Ribera, "Lucretia"; a Millefleurs tapestry of the latter half of the fifteenth century; two stone reliefs of adoring angels, Florentine of the second half of the fifteenth century (ibid. pp. 150-152); and a marble niche and statue of St. Andrew, attributed to Andrea Bregno (ibid. pp. 165-167). The last-mentioned work once formed part of the altar erected in Old St. Peter's in 1491 by Guglielmo Perrier (cf. A. Muñoz, Boll. Arte, VI, 1912, pp. 239 ff.). Further accessions are: a series of stained glass panels of the fifteenth and sixteenth centuries (ibid. pp. 212-214); an early sixteenth-century Descent from the Cross (ibid. p. 216); and two wooden statues of the Virgin and St. John, Italian (?) late thirteenth century (ibid. pp. 230-231).

Byzantine Enamels in J. P. Morgan's Collection. — O. M. DALTON continues his account of the Byzantine enamels in Mr. Morgan's collection in Burl. Mag. XXI, 1912, pp. 219-224 (see A.J.A. XVI, 1912, p. 460). This last article is concerned with the description of the two triptychs, probably of the twelfth century, which are mounted in the great triptych made by Godefroid de St. Claire, or one of his school, for the Abbey of Stavelot. The larger triptych is a reliquary of the True Cross. The inner panel contains the cavity for the relic, busts of the archangels Gabriel and Michael above the arms of the cross, and figures of Constantine and Helena below. The wings are ornamented with figures and busts of Saints. The smaller triptych

displays a Crucifixion, and an Annunciation on the wings.

AMERICAN ARCHAEOLOGY GENERAL AND MISCELLANEOUS

COLORADO. — Ruins at Pesedeuinge. — In Rec. Past, XI, 1912, pp. 28-37 (10 figs.), J. A. Jeancon gives the results of explorations, in 1911, at the Pajaritan settlement of Pesedeuinge on the south bank of the Rio Oso, where eight barrels of pottery, implements of bone and stone, etc., were found.

LOWER CALIFORNIA. — New Petroglyphs. — In Rev. Anthrop. XXII, 1912, pp. 200–211 (16 figs.), J. Engerrand describes and figures new petroglyphs discovered by him in 1911 at San Fernando, La Sierrita, San Julio, etc., in Lower California. These petroglyphs are in white, red, red and yellow, and brown-red; and the figures occurring are human and animal (very much conventionalized), circles, linear and other geometrical forms. According to the writer, only the Sierrita paintings have real analogies with those of American California. The same data are published in Spanish in the author's article in Bol. Mus. Nac. (Mexico), I, 1912, pp. 197–201 (13 figs.). Other petroglyphs from Lower California were described by A. W. North in the Am. Anthr. 1908.

NEW MEXICO.—Ruins of Tyuonyi.—In Journal de la Société des Américanistes de Paris, N.S. IX, 1912, pp. 111-115 (3 pls.; fig.), H. Alliot describes briefly the explorations of the American School of Archaeology during 1911 in the ancient Tewa pueblo of Tyuonyi, New Mexico. Cave-

dwellings, a large kiva, etc., were investigated.

MEXICO. — Discovery of an Important Manuscript. — In Amer. Anthr. N.S. XIV, 1912, pp. 582-583, mention is made of the discovery by Mrs. Zelia Nuttall, in the department of manuscripts of the National Library at Madrid of Francisco Cervantes de Salasar's Crónica de la Nueva España (a manuscript of 885 closely written pages, — it has been freely censored with fortunately no destruction of the text). The many harangues or rhetorical speeches, which it records as having been delivered by Montezuma, Cuahtemoc, and the cacique of Tlaxcalla, Texcoco, etc., are a noteworthy feature of it. The manuscript is anonymous, but Mrs. Nuttall has identified the author beyond question. De Salazar began to write his Crónica in 1559.

PERU. — Prehistoric Human Remains near Cuzco. — In Amer. J. Sci. 4th S., XXXIII, 1912, pp. 297-305 (2 pls.; 7 figs.), H. BINGHAM writes of the discovery of prehistoric human remains (fragment of a cranium, long bones, etc.), with bones of animals (dog or wolf, bos, llama), under from 75 to 100 feet of gravel in a gulch near Cuzco, representing, presumably, remote pre-Inca man; also a "pre-Inca" stone wall. Ibid. pp. 306-325 (6 figs.), Isaiah Bowman discusses the geologic relations of the Cuzco remains, reaching the conclusion that "a conservative statement is that the bones appear to be from 20,000 to 40,000 years old, that they have been buried from three to six times longer than the historical period." The bison (?) bone found with the human bones must be, however, more exactly identified before certainty can be reached. Ibid. pp. 325-333 (2 figs.), G. F. EATON makes a report on the human bones and those of the lower animals, concluding that the human bones per se furnish no evidence of any great antiquity, — "agreeing, as they do, in all essential respects, with the bones of a recent people." The Canis tibia closely resembles that of C. occidentalis; the llama bone may belong to L. quanacus, the wild ancestor of the llama and the alpaca; the fragmentary bovine rib seems to be that of a bison, but pre-Hispanic bisons have not yet been reported from South America. XXXIV, 1912, pp. 497-509 (6 figs.), I. Bowman concludes that the buried wall at Cuzco "not only is pre-Inca; but the possibility exists that it may antedate the period in which ruled the legendary pre-Inca kings." Moreover, it represents "the earliest type of architecture at present known in the Cuzco basin." The geological data are treated with some detail.

Pre-Columbian Remains.—In Arch. Miss. N.S. 4, 1911, pp. 53–126 (24 pls., of which 8 are in colors; 20 figs.), P. Berthon reports upon his explorations in the vicinity of Lima, Peru, covering a period of more than five years. The burials, mummies, funeral furniture, relative dates of the burials, and orientation of tombs are examined, as well as the motifs found on the pottery, its religious character, the antiquity of Nazca, etc. The writer divides the pre-Columbian epoch into six periods. He describes his excavations at Ancon, Chorrillos, Pachacamac, the Plain of Lima, etc., and concludes with a discussion of the manufacture of the pottery and the ornamentation of the huacos of Nazca.

ABBREVIATIONS

Abh.: Abhandlungen. Allg. Ztg.: Münchener Allgemeine Zeitung. Alt. Or.: Der alte Orient. Am. Anthr.: American Anthropologist. Am. Archit.: American Architect. A.J.A: American Journal of Archaeology. A. J. Num.: American Journal of Numismatics. A. J. Sem. Lang.: American Journal of Semitic Languages and Literature. Ami d. Mon.: Ami des Monuments. Ant. Denk.: Antike Denkmäler. Ann. Arch. Anth.: Annals of Archaeology and Anthropology. Arch. Ael.: Archaeologia Aeliana. Arch. Anz.: Archãologischer Anzeiger. ᾿Αρχ. Ἐφ.; ᾿Αρχαιολογικὴ Εφημερίs. Arch. Rec.: Architectural Record. Arch. Rel.: Archiv für Religionswissenschaft. Arch. Miss.: Archives de Missions Scientifiques et Littéraires. Arch. Stor. Art.: Archivio Storico dell' Arte. Arch. Stor. Lomb.: Archivio Storico Lombardo. Arch. Stor. Patr.: Archivio della r. società romana di storia patria. Athen.: Athenaeum (of London).

Ath. Mitt.: Mitteilungen d. k. d. Archaeol. Instituts, Athen. Abt.

Beitr. Assyr.: Beiträge zur Assyriologie. Ber. Kunsts.: Amtliche Berichte aus den Königlichen Kunstsammlungen. Berl. Akad.: Preussische Akademie der Wissenschaften zu Berlin. Berl. Phil. W.: Berliner Philologische Wochenschrift. Bibl. Stud.: Biblische Studien. Bibl. World: The Biblical World. B. Ac. Hist.: Boletin de la real Academia de la Historia. Boll. Arte: Bolletino d' Arte. Boll. Num.: Bollettino Italiano di Numismatica. Bonn. Jb.: Bonner Jahrbücher: Jahrbücher des Vereins von Altertumsfreunden im Rheinlande. B.S.A.: Annual of the British School at Athens. B.S.R.: Papers of the British School at Rome. B. Arch. M.: Bulletin Archéol. du Ministère. B. Arch. British School at Rome. B. Arch. M.: Bulletin Archeol. du Ministère. B. Arch. C. T.: Bulletin Archéologique du Comité des Travaux hist, et scient. B.C.H.: Bulletin de Correspondance Hellénique. B. Inst. Ég.: Bulletin de l'Institut Égyptien (Cairo). B. Metr. Mus.: Bulletin of the Metropolitan Museum of Art, New York. B. Mus. Brux.: Bulletin des Musée Royaux des arts decoratifs et industriels à Bruxelles. B. Mus. F. A.: Museum of Fine Arts Bulletin, Boston. B. Num.: Bulletin de Numismatique. B. Soc. Ant. Fr.: Bulletin de la Société des Antiquaires de France. B. Soc. Anth.: Bulletin de la Société d'Anthropologie de Paris. B. Mon.: Bulletin Monumental. B. Com. Rom.: Bulletino d. Commissione Archeologica Comunale di Roma. B. Arch. Crist.: Bullettino di Paletologia Uraliana. Bunt. di Archeologia Cristiana. B. Pal. It.: Bullettino di Paletnologia Italiana. Burl. Gaz.: Burlington Gazette. Burl. Mag.: Burlington Magazine. Byz. Z.: Byzantinische Zeitschrift.

Chron. Arts: Chronique des Arts. Cl. Phil.: Classical Philology. Cl. R.: Classical Review. C. R. Acad. Insc.: Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres, C.I.A.: Corpus Inscriptionum Atticarum. C.I.G.: Corpus Inscriptionum Graecarum. C.I.L.: Corpus Inscriptionum

Latinarum. C.I.S.: Corpus Inscriptionum Semiticarum.

Έφ. 'Αρχ.: 'Εφημερίς 'Αρχαιολογική. Eph. Ep.: Ephemeris Epigraphica. Eph. Sem. Ep.: Ephemeris für Semitische Epigraphik. Exp. Times: The Expository Times.

Fornvännen: Fornvännen: meddelanden från K. Vitterhets Historie och

Antikvitets Akademien.

Gaz. B.-A.: Gazette des Beaux-Arts. G.D.I.: Sammlung der griechischen

Dialekt-Inschriften.

I.G.: Inscriptiones Graecae (for contents and numbering of volumes, cf. A.J.A. IX, 1905, pp. 96–97). I.G.A.: Inscriptiones Graecae Antiquissimae, ed. Roehl. I. G. Arg.: Inscriptiones Graecae Argolidis. I. G. Ins.: Inscriptiones Graecarum Insularum. I. G. Sept.: Inscriptiones Graecae Septentrionalis. I. G. Sic. It.: Inscriptiones Graecae Siciliae et Italiae.

Jb. Arch. I.: Jahrbuch d. k. d. Archäol. Instituts. Jb. Kl. Alt.: Neue

Jahrbücher für das klassische Altertum, Geschichte und deutsche Litteratur und für Pädagogik. Jb. Kunsth. Samm.: Jahrbuch der Kunsthistorischen Sammlungen des allerhöchsten Kaiserhauses. Jb. Phil. Päd.: Neue Jahrbücher für Philologie und Pädagogik (Fleckeisen's Jahrbücher). Jb. Preuss. Kunsts.: Jahrbuch d. k. Preuss. Kunstsammlungen. Jh. Oest. Arch. I.: Jahreshette des oesterreichischen Archäologischen Instituts. J. Asiat.: Journal Asiatique. J.A.O.S.: Journal of American Oriental Society. J. B. Archaeol.: Journal of the British Archaeological Association. J. B. Archit.: Journal of the Royal Institute of British Architects. J. Bibl. Lit.: Journal of Biblical Literature. J.H.S.:

Journal of Hellenic Studies. J.R.S.: Journal of Roman Studies. J. Int. Arch. Num.: Διέθνης 'Εφημερίς της νομισματικής άρχαιολογίας, Journal international d'archéologie numismatique (Athens).

Kb. Gesammtver.: Korrespondenzblatt des Gesammtvereins der deutschen Geschicts- und Altertumsvereine. Klio: Klio: Beiträge zur alten Geschichte.

Kunstch.: Kunstchronik.

Mb. Num. Ges. Wien: Monatsblatt der Numismatischen Gesellschaft in Wien. Mh. f. Kunstw.: Monatsblefte für Kunstwissenschaft. Mél. Arch. Hist.: Mélanges d'Archéologie et d'Histoire (of French School in Rome). Mél. Fac. Or.: Mélanges de la Faculté Orientale, Beirut. M. Acc. Modena: Memorie della Regia Accademia di scienze, lettere ed arti in Modena. M. Inst. Gen.: Mémoires de l'Institut Genevois. M. Soc. Ant. Fr.: Mémoires de la Société des Antiquaires de France. Mitt. Anth. Ges.: Mitteilungen der anthropologischen Gesellschaft in Wien. Mitt. C.-Comm.: Mitteilungen der königlich-kaiserlichen Central-Commission für Erforschung und Erhaltung der Kunst- und historischen Denkmale. Mitt. Or. Ges.: Mitteilungen der deutschen Orient-Gesellschaft. Mitt. Pal. V.: Mitteilungen und Nachrichten des deutschen Palestina Vereins. Mitt. Vorderas. Ges.: Mitteilungen der vorderasiatischen Gesellschaft. Mon. Ant.: Monumenti Antichi (of Accad. d. Lincei). Mon. Piot: Monuments et Mémoires pub. par l'Acad. des Inscriptions, etc. (Fondation Piot). Mün. Akad.: Königlich Bayerische Akademie der Wissenschaften, München. Mün. Jb. Bild. K.: Münchner Jahrbuch der bildenden Kunst.

N. D. Alt.: Nachrichten über deutsche Altertumsfunde. Nomisma: Nomisma: Untersuchungen auf dem Gebiete der antiken Münzkunde. Not. Scav.: Notizie degli Scavi di Antichità. Num. Chron.: Numismatic Chronicle. Num. Z.: Numismatische Zeitschrift. N. Arch. Ven.: Nuovo Archivio Veneto. N.

Bull. Arch. Crist.: Nuova Bullettino di Archeologia cristiana.

Or. Lit.: Orientalistische Literaturzeitung. Or. Lux: Ex Oriente Lux. Pal. Ex. Fund: Quarterly Statement of the Palestine Exploration Fund.

Πρακτικά: Πρακτικά τῆς ἐν ᾿Αθήναις ἀρχαιολογικῆς ἐταιρείας. Proc. Soc. Ant.: Proceedings of the Society of Antiquaries.

Rass. d' Arte: Rassegna d' Arte. Rec. Past: Records of the Past. R. Tr. Eg. Assyr.: Recueil de travaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes. Reliq.: Reliquary and Illustrated Archaeologist. Rend. Acc. Lincei: Rendiconti d. r. Accademia dei Lincei. Rep. f. K.: Repertorium für Kunstwissenschaft. R. Assoc. Barc.: Revista de la Associacion artistico-arqueologico Barcelonesa. R. Arch. Bibl. Mus.: Revista di Archivos, Bibliotecas, y Museos. R. Arch.: Revue Archéologique. R. Art Anc. Mod.: Revue de l'Art ancien et moderne. R. Art Chrét.: Revue de l'Art Chrétien. R. Belge Num.: Revue Belge de Numismatique. R. Bibl.: Revue Biblique Internationale. R. Ep.: Revue Epigraphique. R. Et. Anc.: Revue des Études Anciennes. R. Et. Gr.: Revue des Études Grecques. R. Et. J.: Revue des Études Juives. R. Hist. Rel.: Revue de l'Histoire des Religions. R. Num.: Revue Numismatique. R. Or. Lat.: Revue de l'Orient Latin. R. Sém.: Revue Sémitique. R. Suisse Num.: Revue Suisse de Numismatique. Rh. Mus. Rheinisches Museum für Philologie, Neue Folge. R. Abruzz.: Rivista Abruzzesa di Scienze, Lettere ed Arte. R. Ital. Num.: Rivista Italiana Numismatica. R. Stor. Ant.: Rivista di Storia Antica. R. Stor. Calabr.: Rivista Storica Calabrese. R. Stor. Ital.: Rivista Storica Italiana. Röm.-Germ. Forsch.: Bericht über die Fortschritte der Römisch-Germanischen Forschung. Röm.-Germ.~Kb.: Römisch-Germanisches Korrespondenzblatt. Röm. Mitt.: Mitteilungen d. k. d. Archäol. Instituts, Röm. Abt. Röm. Quart.: Römische Quartalschrift für christliche Altertumskunde und für Kirchengeschichte.

Sächs. Ges.: Sächsische Gesellschaft (Leipsic). Sitzb.: Sitzungsberichte.

S. Bibl. Arch.: Society of Biblical Archaeology, Proceedings.

Voss. Ztg.: Vossische Zeitung.

W. kl. Phil.: Wochenschrift für klassische Philologie.
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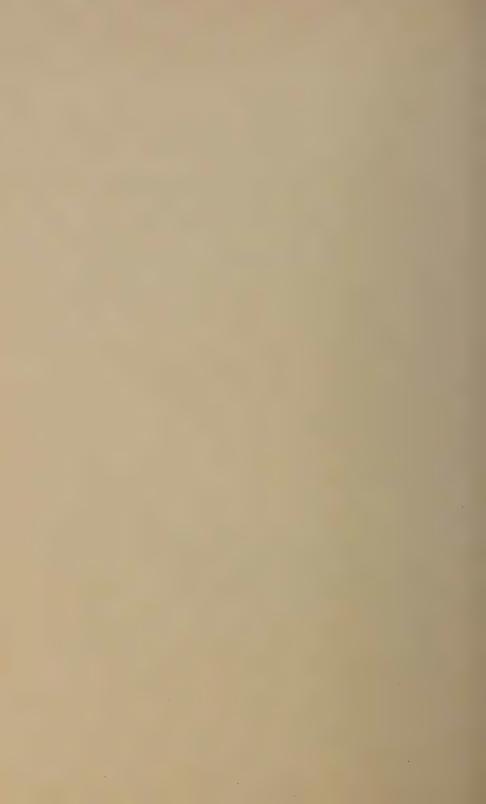
V. "Grotesque" figure in the Metropolitan Museum.

VI. "Grotesque" figure in the Metropolitan Museum.



"GROTESQUE" FIGURE IN THE METROPOLITAN MUSEUM

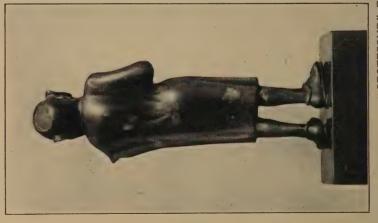








"GROTESQUE" FIGURE IN THE METROPOLITAN MUSEUM



Archaeological Institute of America

GROTESQUES AND THE MIME

[PLATES V-VI]

THE Metropolitan Museum of Art purchased last year an exceptionally fine bronze figure, of the type usually styled "grotesque." In this article I propose first to publish this statuette, and then to offer a new explanation for such "grotesque" figures, which I venture to hope may prove more satisfactory than those advanced hitherto.

The statuette acquired by the Metropolitan Museum is $3\frac{15}{16}$ in. (10 cm.) high. It represents a man standing with his weight on both feet, the right slightly advanced. Both forearms are missing, but enough remains to indicate their original attitude. The right arm is lowered, and was bent sharply at the elbow; the left arm was extended sidewise. He wears a sleeved tunic, which reaches to below his knees and has a fringed border at the bottom. The grotesque character of the figure is brought out by the hunch on his back and his chest, the large phallus, the enormous head, and the exaggerated features (large ears, long hooked nose, and crooked mouth with protruding teeth at the corners). He has whiskers and short, straight hair, which leaves the temples bald. On the crown of the head is a round, shallow depression, of which the most probable explanation is that it was originally inlaid, perhaps with silver, to indicate a shiny bald spot; 1 even now, with the inlay fallen out, it gives the appearance of a large tonsure.

The execution is excellent; it is both careful and spirited; and the rendering of the face with its half leering, half pathetic

¹ For another statuette with the crown of the head inserted separately cf. *Arch. Ztg.* 1877, p. 78, pl. 10.

expression makes of this deformed creature a work of high art. Moreover, technically, this figure is of great interest, illustrating as it does the extreme care with which some ancient bronzes were worked and decorated. Both forearms were evidently made in separate pieces and inserted. The whites of the eyes are of silver; the irises and pupils have fallen out, but were probably either of bronze, glass paste, or precious stones. The two protruding teeth are of silver; the hair and whiskers are covered with a thin foil of niello, and the little buttons on the sleeves of the tunic are also of niello. While the insertion of silver eyes was a common practice in ancient times,2 and that of silver teeth is also known from other examples,3 the application of a separate metal for the hair and beard as distinguished from the rest of the figure is, to my knowledge, not known from other examples of classical art.4 Though the black niello can now hardly be distinguished from the dark patina, it must originally have been most effective when contrasted with the golden color of the bronze.⁵

The period to which this statuette belongs must be late Greek; at least it is inconceivable that a work of so much spirit and animation and of such masterly technique originated in Roman times; and its style and conception do not permit an earlier dating. The statuette is not a recent find, but has been known for a long time. It formed part of the Ficoroni collection and is described and illustrated in Ficoroni, De larvis scenicis, pl. 9, No. 2 (1754); in Wieseler, Denkmäler des Bühnenwesens, 1851, pl. XII, No. 11; 6 in Dieterich, Pulcinella, p. 151; and in Reinach, Répertoire, II, p. 815, 3. Its provenance appears to be unknown. Wieseler in his short description of the figure calls it a "Mimus oder Privatpossenreisser." That his appellation is correct and applies not only to this and the few

 $^{^{1}\,\}mathrm{For}$ a case of two ears worked separately cf. Dütschke, Ant. Bilder. in Oberitalien, IV, p. 137, No. 342.

² Wieseler, 'Ueber die Einlegung und Verzierung von Werken aus Bronze,' in *Nachrichten von der Ges. der Wiss. zu Göttingen*, 1886, p. 49.

³ Cf. Wieseler, op. cit., p. 63. ⁴ Cf. Wieseler, op. cit., p. 61.

⁵ In this connection it is interesting to compare modern Japanese bronzes in which various metals are frequently combined in one figure.

⁶ Wieseler describes the tongue as protruding; he was evidently judging from the illustration of Ficoroni, *De larvis scenicis*, where it has that appearance.

similar figures he enumerates, but to the whole varied class of grotesques, I shall endeavor to show in this paper.

In discussing this subject we must first consider the theories commonly held concerning "grotesque" figures. For, as is well known, a large number of such statuettes have survived, chiefly in bronze and terra-cotta, and various explanations have been given with regard to them.2 The most popular and widely held theory was that they were products of the Alexandrian school, their grotesque character being supposed to illustrate the realistic tendencies of that art. A. J. B. Wace, however, in an interesting article on these grotesques in the Annual of the British School at Athens, X, 1903-1904, pp. 103 ff., has pointed out that few of them have certainly been found in Egypt, and that the majority came from Italy, Greece, and Asia Minor; also that the workmanship in many cases is rather crude, and belongs to the Roman period. His theory is that at least a large number of them³ served as charms against the evil eve.

In order to show the probable identity of the "grotesques" and the actors in the ancient farcical plays called mimes, I shall first briefly enumerate the chief characteristics of the former, then shortly review what we know of the mimes, and finally see how far the two correspond with each other.

The main characteristics of the grotesque figures, reviewing them as a whole, are the following: they invariably show bodily deformities, such as a hunch, a protruding paunch, crooked legs, and exaggerated features, and they all have one distinguishing mark, a large phallus. Baldness is common, and it is noticeable that many of them have a decidedly moody expression. Their dress is that of everyday life, such as a short tunic, a mantle, a pair of short trousers. Besides caricatures

¹ For the terra-cotta examples cf. Winter, *Die figürlichen Terrakotten*, II, pp. 411, 432 ff.; for those in bronze cf. the list given by Wace, *B.S.A.* X, 1903–4, pp. 105 ff. The marble figures he enumerates on pp. 103–104 do not, to my mind, belong to the same class; they are in no sense grotesques or caricatures, but merely realistically treated genre figures. They have therefore not been included in this article.

 $^{^2}$ Cf. Pottier-Reinach, La Nécropole de Myrina, pp. 476 ff., and the references there cited.

³ He seems to include all the bronzes and a few of the terra-cottas.

of ordinary men and women, some are more specifically represented as hawkers, soldiers, peasants, magistrates, and officials.

Our knowledge of the so-called $\mu \hat{\imath} \mu o s$ is limited, being gleaned merely from a few extant fragments, a number of references by ancient authors, and the recently discovered Mimes of Hero(n)das, which, however, are not the genuine popular mimes, but a more refined kind of court mimes. Recently E. Reich, in an admirable work entitled Der Mimus, ein litterar-entwickelungsgeschichtlicher Versuch, I, Berlin, 1903, has brought together the various sources of our information and has convincingly shown what an important part the mime played in Greek and Roman life. In its broad outlines its history appears to have been as follows: While the epic, the tragedy, and the comedy represented the ideal tendencies of Greek life, there was developed at the same time a strongly realistic drama, entitled µîµos, which with its mimicry, buffoonery, and treatment of everyday topics made a strong appeal to the "man in the street." It originated apparently from the mimic dance, which was occasionally varied by the introduction of stray remarks, and was thus gradually developed into a drama. With the increase in power of the populace the mime grew in importance. In the fifth century B.C. we hear of the actors of mimes travelling from one city to another and appearing as clowns or jugglers at festivals. In the fourth century they were welcome guests at the courts of kings and of distinguished men. One more century and they have obtained a recognized place in literature and on the stage. This was during the Alexandrian epoch, in which the realistic spirit of the lower orders permeated all classes of the community. Then the Romans, practical and material by nature, enthusiastically took up the mime, until the idealistic drama was pushed more and more into the background, and during the first, second, and third centuries A.D. the mime reigned supreme.1

From what we know of the mime it appears to have been a real drama, in which a number of actors took part.² Besides the principal characters who could impersonate persons of every

¹ Closely associated with the mime are the Oskan Atellanae, the South Italian Phlyakes, etc., which may all be regarded as local varieties of it; cf. Reich, op. cit., p. 257, note 1.

² Cf. G. Boissier in Daremberg et Saglio, *Dictionnaire*, under *Mimus*, pp. 1904 f., and the references there given.

variety, from deities and aristocrats to the humblest specimens of humanity, there seems to have been always present a sort of pantaloon, called $\mu\hat{\omega}\rho\sigma$, sannius, or stupidus, got up to present a ridiculous appearance. He had to stand a lot of abuse from the other actors and apparently played very much the same rôle as the modern clown. With regard to the costumes worn by the actors on the stage we have some references to show that they wore a variegated coat or centunculus, and a pointed cap or apex. But this seems to apply only to the buffoon, and his costume would naturally not always be the same. As a rule the dress of everyday life seems to have been in use, just as we see it worn in most of the grotesque figures. No masks or buskins were worn; and an enormous phallus was a distinguishing mark of actors of mimes.

The importance of the mime during Roman Imperial days is amply attested by continual references to it by contemporary authors. To the early Christian fathers the mime was abhorrent, and again and again they issued warnings against it. Chrysostomus writes: "Through the mouth of the monks Christ speaks, through the mouth of the mime the devil"; 7 "The subjects of the mimes are fables of the devil"; 8 and again "The whole mimic play is a pageantry of Satan." 9 The classical writers are divided in their opinions, some, the Latin grammarians, for instance, condemning it wholesale, 10 others, such as Cicero and Seneca,

 $^{^1}$ Cf. Mart. Epigr. II, 72, 4: Os tibi percisum quanto non ipse Latinus Vilia Panniculi percutit ora sono. Tert. Spect. 23; Arnob. VII, 33.

² Apuleius, *Apologia*, XIII, p. 416: Si choragium thymelicum possiderem, nunc ex eo argumentarere etiam, uti me consuesse tragoedi syrmate, histrionis crocota, mimi centunculo?

⁸ Cf. Reich, op. cit., p. 448, note, and the references there cited.

⁴ Cf. Reich, op. cit., pp. 578 ff.

⁵ For the absence of masks see Athenaeus, p. 452: ὅσπερ καὶ τῶν Ἰταλικῶν μίμων ἄριστος γέγονεν αὐτοπρόσωπος ὑποκρίτης, and G. Boissier in Daremberg et Saglio, *Dictionnaire*, under *Mimus*, p. 1900; of buskins, see Juvenal, *Sat.* VIII, p. 191; Gellius, *Noct. Att.* I, 11, 12; Festus, p. 277 M, where the mimes are called planipedes.

⁶ Cf., e.g., Scholiast on Juvenal, VI, 276 (phallum ut habent in mimo); Arnob. VII, 33; and the other references cited by Reich, op. cit., p. 258, note.

⁷ VII, p. 675 B. ⁸ IV, p. 770 D. ⁹ VIII, p. 6 C.

¹⁰ Cf., e.g., Evanthius, de trag. et com., who speaks of the mimus as "a diuturna imitatione vilium rerum et levium personarum" (an imitation of vulgar acts and coarse people).

being more prone to see its good side. The occasional descriptions they give of actors in mimes are important for our purpose. Cicero, in the chapters on ridicule in de Oratore, II, chaps. 68-72, often refers to the mimes and speaks of their general deformity, their baldness, and their foolish and ridiculous grimaces. He warns the orator from that sort of ridicule: "quid enim potest esse tam ridiculum quam sannio est? Sed ore, vultu, imitandis moribus, voce, denique corpore ridetur ipso; salsum hunc possum dicere atque ita, non ut eius modi oratorem esse velim, sed ut mimum. qua re primum genus hoc, quod risum vel maxime movet, non est nostrum: morosum, superstituosum, suspiciosum, gloriosum, stultum; naturae ridentur ipsae, quas personas agitare solemus, non sustinere" (II, 251 f.). "What can be so ridiculous as a clown? But we laugh at his grimaces, his mimicry of other people's characteristics, his voice; in short, his whole person. I can call him witty, not, however, in the way I should wish an orator to be witty, but only the mime. That is why this first method, which particularly makes people laugh, does not belong to us. I mean the crossness, superstitiousness, suspiciousness, boastfulness, foolishness. Such characters are in themselves ridiculous; we jeer at such rôles on the stage; we do not act them."

A comparison between such descriptions and the characteristics of the grotesque figures enumerated above, at once shows the intimate connection of the two. There is the same bodily deformity, the grimaces, the large phallus, the baldness, the occasional moodiness of expression; in fact, the generally ridiculous and coarse appearance. The mimes represented various characters taken from everyday life, and so do the grotesques. The mimes had reached their greatest popularity during the Hellenistic and Roman periods, and it is to these two periods that the extant examples of grotesques belong.²

It would in fact be curious if, intensely popular as we know the mimes to have been, we should not find representations of them in ancient art. Bronze and terra-cotta statuettes of actors in the "idealistic" dramas have been readily identified from the

¹ Cf. Reich, op. cit., pp. 61 ff.

² Cf. A. J. B. Wace, B.S.A. X, l.c.

masks they wear.¹ Representations of the Phlyakes, or comedies given on Dionysiac festivals in Magna Graecia, are familiar from a certain class of South Italian vases.² But representations of the famous mimes have hitherto been identified in very few monuments.³ Perhaps the reason the "grotesques" have not readily suggested actors is that they do not wear the mark of what we have been accustomed always to associate with ancient theatrical personages—the mask. But, as we have seen above, we are expressly told that the actors in mimes wore no masks and no buskins, so that that difficulty is removed.

In conclusion, I wish to point to an argument which certainly favors the identification of grotesque figures with mimic actors rather than the theory that they were used as charms against the evil eye. If we regard them as charms, each figure stands as a unit; if as actors, they are not units, but, so to speak, part of a company. Not that the statuettes were not probably made to be sold singly, but in their character as actors they necessarily must be conceived as associated with other figures. Now, we actually have some monuments in which figures, unmistakably like our "grotesques," are brought together, evidently acting a drama. One is the terra-cotta group, published by Watzinger,4 in which three men, identified by an inscription as μιμολόγοι, are apparently impersonating a disobedient slave, an angry master, and an amused youth. Even more striking are the representations found on Arretine ware where grotesque figures of every description are engaged in what are evidently various dramatic scenes.5

¹ Cf., e.g., Winter, Die Typen der figürlichen Terrakotten, II, pp. 414 ff.; Körte, Jb. Arch. I. VIII, 1893, pp. 77–86.

² Cf. Heydemann, *Jb. Arch. I.* I, 1886, pp. 261 ff., and the later literature cited by Dörpfeld-Reisch, *Das griechische Theater*, p. 311.

³ E.g. the terra-cotta group from the Acropolis, which actually bears the inscription $M\iota\mu\omega\lambda\delta\gamma\omega$ (cf. C. Watzinger, Ath. Mitt. XXVI, 1901, p. 1, pl. 1); the few monuments cited by Reich, op. cit., pp. 579, note and 258, note; and the figures in Wieseler, $Denkm\"{a}ler$ des $B\ddot{u}hnenwesens$, pl. XII, 9 ff.

⁴ Ath. Mitt. XXVI, 1901, p. 1, pl. I.

⁵ Cf. H. Dragendorff, *Terra sigillata*, p. 78, pl. IV, 23; U. Paqui, *Not. Scav.* 1896, pp. 458-461, figs. 2-7. It is interesting to compare the figure with the head of a donkey on fig. 2, with the terra-cotta figures with animals' heads in Winter, *Typen d. fig. Terr.* II, p. 411.

If our detailed knowledge about the mimes were greater, it would be a fascinating study to pursue this subject further and try to identify the various types of grotesque figures with specific characters in the plays. In the present state of our knowledge, however, this would be so largely conjectural that it would hardly be wise even to attempt it.

GISELA M. A. RICHTER.

NEW YORK, METROPOLITAN MUSEUM OF ART. Archaeological Institute of America

INSCRIPTIONS FROM THE CYRENAICA 1

THE epigraphical copies and notes made by Herbert Fletcher De Cou, whose tragic death occurred at Cyrene on March 11, 1911 (cf. Bulletin, II, 1911, pp. 111 f.), have been assigned to me to prepare for publication. It is to be deeply regretted that Professor De Cou did not live to edit the inscriptions in his scholarly and painstaking way and to give to the archaeological world a rich harvest from his own interpretation and great learning. This article is offered as a tribute to one who was loved and admired by all who knew him, a skilled archaeologist, who sacrificed his very life to the excavation of Cyrene and to the copying of these inscriptions. Some (Nos. 69–104) were copied by Mr. Richard Norton, and one or two from Tolmeta by Mr. Oric Bates. For the important inscriptions and many of the minor ones I have had the use of photographs as well as copies. Most are unimportant except for African prosopographia, but the epigrams (Nos. 11, 35, 74) and No. 104 will surely prove of great interest. Where not otherwise stated, the inscriptions are from Cyrene itself. For the sake of completeness even fragments with only a few letters preserved are included.

1. Slab of marble 0.015 m. thick, 0.07 m. \times 0.09 m.; bought from an Arab, February 2, 1911. Letters, 0.02 m., and poorly cut.



Μ Βασ--αδωμ-

FIGURE 1. — INSCRIPTION No. 1.

¹ A few other inscriptions from Apollonia were published by A. W. Van Buren, J. H. S. XXVIII, 1908, pp. 198-201.

American Journal of Archaeology, Second Series. Journal of the Archaeological Institute of America, Vol. XVII (1918), No. 2. 2. Fragment of marble with right edge cut, 0.09 m. long. Bought from an Arab, February 26, 1911. Letters, 0.01 m. to 0.02 m.



-tos.

FIGURE 2. — INSCRIPTION No. 2.

3. Slab of marble 0.015 m. thick. Found in tomb 6 in January, 1911. Letters, 0.02 m. high, poorly cut. Height of fragment, 0.09 m.



νο[α?] θυγάτ[ηρ ν]ομῆι υτε

FIGURE 3. - Inscription No. 3.

4. Slab of marble 0.017 m. thick. Bought from an Arab, January 4, 1911. Letters, 0.015 m. to 0.02 m. high, poorly cut. Height, 0.085 m.



-ουθο πιοις δε

FIGURE 4. - INSCRIPTION No. 4.

- 5. Slab of marble 0.04 m. thick. Found in tomb 6 in January, 1911. Letters, 0.02 m. high. Height of fragment, 0.04 m. Curved edge, which is possibly intentional. Only —W is preserved.
- 6. Slab of marble 0.02 m. thick, 0.11 m. long. Bought from an Arab, February 18, 1911. Upper letters, 0.015 m.; lower, 0.02 m.; rather roughly cut.



FIGURE 5. - INSCRIPTION No. 6.

ρηενι τατερκ

7. Slab of marble 0.02 m. thick, 0.09 m. high. Right edge worked. Found in front of photograph tomb, January 20, 1911. Letters, 0.02 m., poorly cut.



FIGURE 6. - INSCRIPTION No. 7.

ιπαγ οτ νπαγ

8. Slab of marble 0.017 in. thick. Lower edge worked. Width at bottom, 0.125 m.; height, 0.135 m. Bought from an Arab, December 30, 1910. Letters poorly cut, 0.015 m. high.



εν ροις π[α ληπιας εκ τελοστες

FIGURE 7. - INSCRIPTION No. 8.

9. Flake of marble. Height, 0.145 m.; width, 0.125 m. Bought from an Arab, February 16, 1911. Right edge worked. Surface much weathered. Letters deeply and fairly well cut; irregular, but average height 0.012 m.



FIGURE 8. - INSCRIPTION No. 9.

δηπι νηπως 'Αντιόχεια -ατραστα -μορος -μα

10. Slab of marble 0.012 m. thick, 0.102 m. long. Found in Apse Building, 4.5 m. below surface, March 16, 1911. Top much rubbed; letters scarcely visible.



μρ ακ : αα ? μ αδζ . . ε

FIGURE 9. - INSCRIPTION No. 10.

11. Marble stele, found face up in front of tomb on left of Fresco Tomb, March 22, 1911, 1.06 m. high, 0.355 m. wide at top, 0.415 m. wide at bottom. Letters, 0.025 m. to 0.03 m., well cut but of irregular width. At top of stele a wreath with fillets, surrounding a spindle with a whorl on the end and a rod with ball of wool. These seem to be the πήνισμα (cf. Anth. Pal. VI, 283), κερκίς, and ἢλακάτη mentioned in the epigram. Between the wreath and the inscription is a rosette, below which is the age sign which is so common in late Greek inscriptions and papyri, especially of Africa; LK = ἔτη εἴκοσι. On top is a small hole, perhaps for fastening a bust. The epigram adds one more to the list of pretty epigrams in honor of those who died in childbirth; cf. the citations in 'Aρχ. 'Eφ. 1908, p. 24, notes 2 and 3; cf. Robinson, A. J. Phil. XXXI, 1910, pp. 388–389. In l. 1 $\theta \epsilon \eta$ is probably a mistake for $\theta \epsilon i \eta$ rather than the noun which would personify νόσος, especially since $\theta \epsilon i a \nu \delta \sigma \sigma s$ is a common phrase, though with different meanings, in Greek literature (cf. Soph. Ajax, 186; Ant. 421). Here the meaning is explained by καὶ τοκετῶ, the datives depending on φθιμένην without a preposition, as in Soph. O. T. 962 (νόσοις · · · ἔφθιτο). Another mistake occurs in Il. 7, 8, ἡλεκάτη for $\eta \lambda a \kappa a \tau \eta$. In 1. 8 the feminine $\tau \eta s$ is used for $\tau o \hat{v}$, owing to the forms βιότη and the Latin vita. In the last line the fourth letter of μελέου was corrected from P to E, the stonecutter thinking evidently of NEAPOY. MEAEOY is certain because the third letter has no cross-bar.



FIGURE 10. - INSCRIPTION No. 11.

LK

τὴν διτόκον μονόπαιδα θε|(ί)η Σικελὴν ὅδε Πλαύταν νού|σφ καὶ τοκετῷ τύμβος | ἔχει φθιμένην

δ ἀκλέα δ' ἐν | σκοτίη πηνίσματα καὶ λά|λος αὖτως κερκὶς ὁ|μοῦ πινυτῆ κεῖται ἐπ' ἡ|λεκάτη

10 καὶ τῆς μὲν βι|ότου κλέος ἄδεται ὅσ|σον ἐκείνης

τόσσον καὶ μελέου πένθος ἀεὶ πόσι'ος.

12. Slab of marble, 0.025 m. thick, 0.10 m. high, found in central room of Apse Building, 4.5 m. below surface, March 15, 1911. Letters well cut, 0.012 m. high.

 $\begin{array}{lll} \mathbf{S}: \mathsf{T} \; \Omega \; \Delta & & \mathsf{-s} \; \tau \hat{\mathbf{w}} \; \Delta \mathsf{-} \\ & \mathbf{S}: \mathsf{I} \; \mathsf{A} \; \mathsf{P} & & \mathsf{s} \; \iota \mathsf{ap} [\iota \tau \epsilon \acute{v} o \nu \tau \sigma \mathbf{s} \\ & - \; \mathsf{T} \; \mathsf{I} \; \mathsf{M} & & \dot{\epsilon} \tau \acute{\iota} \mu [\eta \sigma \epsilon \nu \\ & - \; \mathsf{J} \; \mathsf{V} \; \mathsf{P} & & [\Pi \upsilon \rho] \mathsf{-} \end{array}$

13. On a column drum of Malta stone built into the inside of the west wall of the central room of the Apse Building, about 4 m. below surface, found March 15, 1911. Letters well cut and apicated, 0.045 m. high. Beginning of inscription hidden. Since its discovery the inscription has been damaged.



-ius Bassus.

FIGURE 11. - INSCRIPTION No. 13.

14. Slab of marble 0.062 m. broad, 0.09 m. high, 0.022 m. thick. Top and left side slightly bevelled. Found in southeast corner of central room of Apse Building, 3.25 m. down, March 26, 1911. Letters, 0.012 m. high, slightly apicated. The first letter of each line is on the bevel, as though the marble had served some other purpose before being inscribed. Right side and bottom broken.



ϵν τῷ ξ[ϵνίᾳἩραιδα [ὁ−πισ σϵγκαλλυ

FIGURE 12. - INSCRIPTION No. 14.

15. Slab of marble 0.06 m. broad, 0.055 m. high, 0.022 m. thick. Left side bevelled. Other details same as in No. 14,

with which it is probably to be connected. Top, right side and bottom broken.



ίτα κοιλίαν -υτ-

FIGURE 13. - INSCRIPTION No. 15.

16. Slab of marble, 0.09 m. high, 0.055 m. broad. All sides broken, but other details as in Nos. 14 and 15 and from same place. In line 3 $\xi \epsilon \nu$ - is undoubtedly part of the same word as in line 1 of No. 14, whatever that word may be.

KI FAIH N E E N FFION TT

17. Small marble stele, bought from an Arab, March 26, 1911, 0.17 m. high, 0.135 m. wide, 0.05 m. thick. Broken below inscription. Simple moulding at top. Letters well cut but thin, 0.0075 m. high.

API≷TEA≷ APIMNA≷TO

'Αριστέας 'Αριμνάστο

18. Fragment of round marble object, bought from Arab, February 27, 1911, 0.10 m. high. Inscription on top member of moulding, below which are remains of figures, one carrying a lyre, another with crested helmet on head. Letters, 0.012 m. high, blackened by Arabs; deeply but not very well cut. Top surface smooth and on it are painted some illegible letters.



Δημητρίου

FIGURE 14. — INSCRIPTION No. 18.

19. Fragment of marble, found in front of Sculptured Tomb east of the excavators' house, April 10, 1911. Top and right edge cut. Width, 0.08 m.; height, 0.09 m. Traces of another surface rising from top, circ. 0.01 m. back. Letters, 0.017 m. high.

) N L M IIK A

20. Slab of marble 0.14 m. high, 0.11 m. broad. Bought from an Arab, March, 1911. Back of slab roughly smoothed. Moulding below inscription. Letters, 0.01 m. high.

21. Block of marble, rather coarser than Pentelic, bought from an Arab, March, 1911. Height, 0.145 m.; width, 0.12 m.; thickness of block 0.13 m.; back surface roughly smoothed. Letters, 0.025 m. high. Block broken on all edges except right, along which runs an egg-and-dart and a leaf-and-dart moulding.

 $- \ge \Delta$ $\downarrow \cdot M \cdot$ $\uparrow \cdot Y \cdot \dot{L} \cdot \Lambda \Theta$ $\uparrow \cdot \dot{V} \cdot$

22. Cut on side of lid-projection of sarcophagus about 20 yards west of Fresco Tomb. Letters, 0.14 m.



FIGURE 15. - INSCRIPTION No. 22.

Λάρα

23. Cut on sloping side of lid of sarcophagus above and west of Fresco Tomb. Nev $\sigma\sigma$ is is a new name, perhaps the same as Nav σ is, a place in the Cyrenaica.



FIGURE 16. — INSCRIPTION No. 23.

Νευσσίς

24. Stele of white marble. Broken at bottom and upper right corner. Height, 1.04 m.; width, 0.33 m.; thickness, 0.205 m. Letters, 0.033 m. Surface much weathered and inscription mostly illegible. Bought from Arab, November, 1910.

25. Cut in rock on right of stairs leading to Sculptured Tomb, east of excavators' house. Letters, 0.13 m. Roughly and deeply cut. Discovered, March 29, 1911.



FIGURE 17. - INSCRIPTION No. 25.

Φιλοκρατείας

26. On sarcophagus east of excavators' house. (a) Rather roughly cut on slope of lid. (b) Deeply cut in good letters on edge of lid.

a. A Γ Λ O I N Å "Απλοινα b. Η I Γ O ηιποσ-

27. Fragment of marble, bought from an Arab, June, 1910, 0.17 m. high. Letters, 0.012 m. The inaccuracies in De Cou's copy (l. 2, $-\lambda\lambda\omega\nu$ os, l. 4, $-\delta as$ for $-o\lambda\iota s$, l. 10, $\rho\tau as$ for $\epsilon\rho\iota\tau as$) I have corrected by means of the photograph. B is on the right side of A, on an adjoining side of the block, so that the letters there cannot well be combined with those in A, as De Cou suggested. For similar lists of military officers, priests, etc., at Cyrene, cf. Smith and Porcher, History of the Recent Discoveries at Cyrene, Nos. 6 and 7 (= S. G.D.I. 4833, 4834), and C.I. G. 5143 f.



FIGURE 18. — IN-SCRIPTION NO. 27 A.

Α
ηι
Ματίωνος
Δαμασάνορος
-ολις Περετίμω
(for Φερετίμω)
5 -πος Τλάσωνος
-πος Μυρτωσίω
-θης 'Αγαθάρχω
-αρχος 'Ιρηναίω)
-ολας Σεμήρο(υ)ς
10 -ερίτας Λαστράτω
δ οτ λ]ας 'Αναξίω



FIGURE 19. — IN-SCRIPTION NO.27 B.

ν Πα-Κα-Πο-5 Θε-Γν-'Ακε-Λα-

B

Line 6, Μυρτώσιος = Μυρτούσιος is connected with Mt. Μύρτουσα at Cyrene; cf. Malten, Kyrene, pp. 205 f. Line 9, Σεμήρης is a new name, but cf. Σεμηρώνιος. Line 10, Λάστρατος is also new, but cf. Λαστρατίδας. Line 11, 'Ανάξιος οr 'Αναξις (gen. 'Ανάξιος) occurs as a name also at Cyrene in C.I.G. 5133; cf. also Smith and Porcher, op. cit. p. 109, No. 3; p. 110, No. 6, line 46, "Αναξις Δαμώνακτος (S. G.D.I. 4840, 4833, 4836).

28. Slab of gray marble, given by an Arab, April 4, 1911, 0.14 m. broad, 0.022 m. thick. Letters, 0.03 m. to 0.04 m. Much weathered. Back covered with flat bands.

29. Found in tomb 6, January 23, 1911. Greatest length, 0.10 m. Letters, 0.02 m.



FIGURE 20. - INSCRIPTION No. 28.



FIGURE 21. - Inscription No. 29.

30. Found in tomb 6, January 23, 1911. Top edge cut and others broken. Height, 0.09 m.; thickness, 0.03 m. Letters, 0.02 m.

31. Fragment of marble 0.08 m. high, 0.022 m. thick. Letters, 0.03 m.



FIGURE 22. — INSCRIPTION No. 30.



FIGURE 23. — INSCRIPTION No. 31.

32. Marble block, flat on top, hollowed below, broken in two. Slight moulding at top and bottom. Width, 0.13 m.; height, 0.14 m.; front to back, 0.19 m. Letters, 0.027 m. Bought from an Arab, November, 1910.



FIGURE 24. — Inscription No. 32.

-ιος ἐτ]ῶν ια΄

33. Fragment of marble slab from Marsa Susa, bought April 5, 1911. Height, 0.115 m.; width, 0.045 m.; thickness, 0.03 m. Back worked smooth. Right edge and bottom cut, top and left edge broken. Letters, 0.01 m.

ICI \ A € IΠ A I TT A

34. Fragment of local stone found in tomb 6 in January, 1911. Width, 0.16 m.; height, 0.18 m. Back broken. Top

and right edge cut, and decorated with rough palm branch pattern.

 $\Gamma I_{\omega\lambda\pi}$

35. White marble stele found November, 1910, in a tomb cleared by soldiers, just east of the camp, now in the camp. Height, 0.93 m.; width at top, 0.415 m.; thickness, 0.28 m. Letters, 0.018 m. to 0.025 m. Moulding on top like a Doric capital with abacus.



FIGURE 25. - INSCRIPTION No. 35.

Οὖνομα μὲν Διονύσις | ἔφυ δὲ πατρὶς Κυράνα
3 καὶ παίδες γενόμαν καὶ | παιδῶν πα²δας ἐσείδον
5 καὶ βιοτᾶς λαχόμαν πλὴν | δύ ἐτων ἑκατόν

θνήσκω δ' οὐ νούσοισι | δαμεὶς εὕδων δ' ἐνὶ κοίτη(ι)

9 τοῦτον ἔχω μισθὸν δήσθιον εὐσεβίης

There is a space left between the verses; and the end of lines 1, 3, and 7 corresponds with the caesura in the three hexameters. Such is not the case with the pentameter verses (ll. 5 and 9). In No. 11 no attention at all is paid to the caesura, and the end of a line does not even correspond to the end of a verse. Line 1, $\Delta \iota o \nu \dot{\nu} \sigma \iota \varsigma$ is for $\Delta \iota o \nu \dot{\nu} \sigma \iota \varsigma$. For $\iota \varsigma$ instead of $\iota \iota \circ \varsigma$ of Ath. Mitt. XXIV, 1899, p. 419; XXV, 1900, p. 440; Wilhelm, Wiener Studien, XXIV, 1902, p. 599; Mayser, Gramm. der Gr. Papyri,

260, note 2 with references; Keil und Von Premerstein, Bericht über eine Reise in Lydien (Denks. d. k. Ak. in Wien phil.-hist. Kl. Bd. LIII), pp. 15, 66; Zweiter Bericht (op. cit. Bd. LIV), pp. 50, 59, 64, 65, 68 (Διονύσις bis), etc.; B.C.H. XXXVI, 1912, p. 586 (Διονύσις), and references there; Hatzidakis, Einleitung in die neugr. Gram. pp. 314 ff.; Nachmanson, Laute und Formen der magn. Insc. 125, etc. Line 3, παίδες γενόμαν, παίδες is a mistake for $\pi a i \delta a s$, and $\gamma \epsilon \nu \delta \mu a \nu$ for $(\epsilon) \gamma \epsilon \iota \nu \delta \mu \eta \nu$. In No. 11 we also have a writing of ϵ for a in $\dot{\eta}\lambda\epsilon\kappa\dot{\alpha}\tau\eta$. For this weakening of a to e cf. Dieterich, Unters. zur Gesch. der gr. Sprache, pp. 3f.; Mayser, op. cit. pp. 55-56. For interchange of o and a cf. Mayser, op. cit. p. 61; Hatzidakis, op. cit. 186; Rh. Mus. XLVI, 1891, p. 194; Schweizer, Gram. der perg. Ins. 184; Keil und Von Premerstein, op. cit. Zweiter Bericht, p. 106 (ἐστήσομεν and ἐνεγράψομεν). Lines 9 and 10, δύσθιον for δύσθεον, cf. Mayser, op. cit. pp. 81 ff. This epigram for the Cyrenaean Dionysius, who, like Philemon and Isocrates (Paus. 1, 18, 8), died at the age of ninety-eight, reminds us, especially in ll. 7-8, of the epigram by another Dionysius for the Cyrenaean geographer Eratosthenes, who also lived to a good old age (Anth. Pal. VII, 78: πρηΰτερου γηράς σε καὶ οὐ κατὰ νοῦσος ἀμαυρη | ἔσβεσεν, εὐνήθης δ' υπνον οφειλόμενον, etc.).

36. From the house of the Mudir (Northern Necropolis). Stele of white marble with a moulding at the top about all



FIGURE 26. - INSCRIPTION No. 36.

Θεύδωρος Ἰάσονος four sides. Height, 0.913 m.; top, 0.292 m. \times 0.282 m.; width of shaft at inscription, about 0.272 m. Inscription begins 0.05 m. below moulding. Length of upper line, 0.233 m.; of lower, 0.205 m. Height of letters, 0.02 m. to 0.035 m.

Line 1, Mr. Norton reads $E\mathring{v}\delta\omega\rho\sigma$, but the Θ is clear in the photograph. The bottom stroke of \leq is faint but certain. The line which looks like a fifth hasta has a depression only at the lower end; the remainder is discoloration. The name $\Theta\epsilon\mathring{v}\delta\omega\rho\sigma$ occurs also in Smith and Porcher, op. cit. p. 110, No. 6, line 44 (=S.G.D.I. 4833). For ' $Id\sigma\omega\nu$ cf. C.I.G. Nos. 5146, 5160, 5161, 5163; Smith and Porcher, op. cit. p. 108, No. 4, p. 110, No. 6, lines 19, 28; p. 111, No. 7, line 23 (=S.G.D.I. 4833, 4834, 4857).

37. From Northern Necropolis, from tomb 6, used as stable. Stele of white marble with a moulding at the top about all four sides. Height, 0.99 m.; top, 0.38 m. \times 0.30 m.; width of shaft, 0.34 m. to 0.375 m. Inscription at distance of 0.01 m. below moulding. Length of upper line, 0.22 m. Height of letters, 0.019 m. to 0.021 m. Roughly cut.



Εὔανδρος Δροσίω

FIGURE 27. - INSCRIPTION No. 37.

Line 1, the first letter is cut in an erasure, which seems to have been due to a desire on the part of the engraver to begin the line a little farther to the left. Line 2, the end of the line is poorly preserved, but there are apparently remains of two Ω s, the first of which was partly erased as being too close to the preceding letter. The names $\Delta \rho \acute{o}\sigma os$ and $\Delta \rho \acute{o}\sigma \iota o\nu$ occur in Pape-Benseler, Eigennamen, but not $\Delta \rho \acute{o}\sigma \iota os$. On the other

side of the stele, opposite the inscription, there is a heavy garland tied with ribbons.

38. From Northern Necropolis, January, 1911. Stele of white marble. In top, rectangular hole for fastening capital. Height, 1.47 m.; width, 0.39 m. to 0.43 m.; thickness, 0.25 m. Inscription begins 0.225 m. from top. Height, 0.885 m. Height of letters, 0.02 m. to 0.03 m.



FIGURE 28. - Inscription No. 38.

∟ ρκ Παχών ε 'Ροῦφος Λ. Έλβίου 'Ρούφου νίὸς γραμματεύς 5 πόλεος Κυρήνης ενθάδε ετάφη L πς L ρκβ Παοινὶ ζκ Κ. Πονπήιος Πωλλίων L ξβ L (ρ) ρκη Μεχίρ δι Κλαυδία 'Ρουφίλλα L λς. L ρλγ Θῶθυ κζ Π. Έρέννιος Καπίτων L vs. ρλη Χοιαχὶ κε Μ. 15 Μαικίλιος Σεκόνδος L is. L ρλ Φαωφὶ δ Γ. Γαλλίκιος Πωλλίων L η. Κλ. 'Αφροδεισία L is. 20 Κλ. Δημήτριος L κ.

Line 1, for L cf. Wilcken, Gr. Ostraka, I, p. 819, n. 1. For the use of the Actian era cf. C.I.G. 5144, commentary. Line 5, $\pi\delta\lambda\cos$: error in orthography, as $\Delta\rhoo\mu\dot{\epsilon}os$ for $\Delta\rhoo\mu\dot{\epsilon}os$ in Keil und Von Premerstein, op. cit. I, p. 60, No. 123, rather than

intrusion of dialect, since the inscription is otherwise in the $\kappa o \nu \gamma i$. Lines 6, 10, 13, 19, for s=6, cf. the character on an inscription from Sparta, B.S.A. XIV, p. 105, No. 3, 1, 6. Line 7, $\xi \kappa$: the unit before the decimal, an imperial characteristic, occurs also in line 9, and C.I.G. 5305, and Roberts-Gardner, $Greek\ Epig.$ II, pp. 387–388. On the opposite side of the stele, beginning at 1.10 m. from the top, is the inscription C.I.G. 5167. Length, 0.32 m. Height of letters, 0.02 m.

 $\leq 1 \Delta \Omega N 10 \leq$ $\leq E \Lambda Y M A 1 \Omega$ Σιδώνιος Σελυμαίω

The letters are clear, the reading of the C.I.G., $\Sigma \iota [\lambda \dot{\eta}] \nu \iota \sigma \Sigma \epsilon \lambda \nu \mu a \iota a$, is incorrect. In line 2 Norton reads at end OY, De Cou Ω . Norton gives A, not A.

39. Found a short distance east of the camp of the expedition, just below the road to Marsa Susa (Apollonia) and close to the painted tomb. Round pillar of soft limestone, top and lower part missing, perhaps a milestone. Height, 0.62 m.; diameter, 0.47 m. Height of letters, 0.06 m. to 0.16 m.



Imp. Caesar divi Nervae f. Nerva Traianus

FIGURE 29. — Inscription No. 39.

40. From top of West Hill, from Roman building. Rectangular basis of white marble, 0.283 m. long. Back and left half missing. Height, 0.12 m. On top, oval depression for insertion of base of statue. Length of inscription, 0.12 m. Letters shallow, the last partly effaced. Height, 0.022 m.

The lost portion contained the name of the person heroized, whom the statue represented. On such inscriptions and the use of the word ηρως, cf. Ramsay, Cities and Bishoprics of Phrygia, I, p. 384; Lévy, R. Ét. Gr. XII, p. 258; C.I.G. 3492; B.C.H. X, 1886, p. 412; Ath. Mitt. XXIV, 1899, p. 227; De Coulanges, Cité Antique, 1905, p. 20; Rohde, Psyche, pp. 142 f.; Thieling, Der Hellenismus in Klein-Afrika, p. 34; Keil und Von Premerstein, op. cit. I, p. 4; II, p. 42; B.C.H. XXXVI, 1912, pp. 584 ff.

41. From tomb No. 8, east of camp (Northern Necropolis). Stele of white-shell limestone, found in February, 1911. Height, 0.84 m.; width, 0.54 m.; thickness, 0.22 m. Inscription begins 0.175 m. from top; length, 0.38 m. Height of letters, 0.07 m. to 0.11 m. Traces of other letters.



μη ἀνοίγε(ι)ν

FIGURE 30. - INSCRIPTION No. 41.

This evidently belongs along with the class of inscriptions so common in Asia Minor, forbidding any one to open the tomb under penalty of fine (cf. A.J.P. XXXI, 1910, p. 403). A similar idea that the tomb is full and there is no room for more occurs in the next inscription.

42. Inscription cut in rock over door of tomb east of the camp. Letters, 0.07 m. to 0.08 m. in height, deeply cut.

 Π Λ Η P π λήρης

43. Broken white marble block, found April 2, 1911, in second opening east of Fresco Tomb. Top and right edges worked. Block 0.22 m. thick, 0.34 m. wide. Letters, 0.025 m.



T A X A Ταχακλεῦς Κ Λ Ε Υ **<** (cf. Attic Ταχικλέως)

FIGURE 31. — INSCRIPTION No. 43.

44. On block of white marble (probably Parian), which had served as doorstep of house on upper lane just beyond and to the west of wady descending from Fountain of Apollo. The letters at left were broken off (but preserved) in transporting to camp. Stone is probably right front corner of larger basis.

Front and right side have the form . Inscription at top.

Top rough and slightly converse. Probably not the original surface. Hole in bottom with small channel running from it to edge (for lead). Back roughly broken and hacked. Left edge fractured. Length of stone, about 0.535 m.; height, 0.215 m.; depth, 0.325 m. Inscribed face, length, 0.31 m.; height, 0.087 m. Letters, 0.015 m. high.



τὰ ἀγάλματα ἐπεσκευάσ[θησαν

FIGURE 32. - Inscription No. 44.

45. From Northern Necropolis, found in front of tomb used as photographic dark room, January 22, 1911. Stele of white marble, on which is sculptured in high relief the nude male figure of an athlete, with short beard and portrait features, turned slightly to left (cf. Bulletin of Arch. Inst. II, 1911, p. 160 and pl. lxxi). Beside his left leg a small stele is carved on the background of the relief. On it is the small inscription (a).

Height of letters, 0.014 m. Beneath same a wreath. The figure is represented as standing on a base, the front edge of which bears the longer inscription (b). Length, 0.315 m.; height of letters in upper line, 0.027 m. to 0.03 m.; in lower line, 0.011 m. and 0.012 m., except ϕ (0.025 m.). Date second century A.D. or later.

TAPH FOPIC

ANTWNIANO@KAIMWPOC & P & C I O C

(α) παρηγορίς

(b) 'Αντωνιανὸς ὁ καὶ Μῶρος 'Εφέσιος

 $\Pi a \rho \eta \gamma o \rho \hat{i} s$ in (a) may be for $\pi a \rho \eta \gamma o \rho \epsilon \hat{i} s$, addressed to the victory (personified), to which the principal figure refers, or the proper name Παρηγορίς (cf. Bechtel, Die Attischen Frauennamen, p. 47). In (b) ὁ καί is like the Latin et qui connecting the two names, one of which is often a native name or nickname. I prefer to take Môpos as an African name (cf. C.I.G. 4984, 5035, etc.) rather than as a nickname, as is done in the Bulletin, l.c. ("Antonianos, otherwise known as the Fool, the Ephesian," which would be καὶ ὁ Μῶρος rather than ὁ καὶ Μῶρος). For ὁ καὶ between alternative or double names, cf. Ramsay, Cities and Bishoprics of Phrygia, I, pp. 637 f.; Eastern Provinces, p. 359; Cl. Rev. 1898, p. 337; other references in Aρχ. 'Eφ. 1911, p. 240; cf. especially now Lambertz, Glotta, IV, 1912, pp. 78 f.; V, 1913, pp. 99 f. For another example from Cyrene, cf. C.I.G. 5137 = Smith and Porcher, op. cit. p. 116, No. 26 (S. G. D. I. 4845).

46. White marble block, bought from Arab, April, 1911. Edges badly chipped. Height, 0.85 m.; length, 0.59 m.; width (from one inscribed surface to the other), 0.33 m. Bottom roughly cut flat. Top hollowed. Letters, 0.035 m. (a) on one side, (b) on other. Πολυκλής Μελανίππω occurs in Smith and Porcher, op. cit. p. 110, No. 6, line 15 (S.G.D.I. 4833). Nor can this be the famous philosopher of Cyrene, Carneades, though the letters could date from his time, since his father's name was Epicomus or Philocomus (cf. Diog. L.

iv, 62). For the name at Cyrene, cf. *C.I.G.* 5143, 5144, 5160, 5309 (*S.G.D.I.* 4846, 4847, 4864), and Pindar, *P.* ix.



Figure 33. — Inscription No. 46 α.

(a) Πολυκλ [έους



FIGURE 34. — Inscription No. 46 b.

(b) Φάου νίοῦ Καρνεάδο[υ

47. White marble stele, found face down on Northern Acropolis. Height, 0.95 m.; width (at top below moulding), 0.34 m.; thickness, 0.18 m. to 0.21 m. Letters, 0.03 m. Inscription begins 0.44 m. from top. Letters O in first line and second M incomplete.



FIGURE 35. — INSCRIPTION No. 47.

Εὐαγόρας 'Αμωμήτω

48. White marble base, bought from an Arab, April 7, 1911. Height, 0.23 m.; length, 0.73 m.; width, 0.58 m. Mouldings at top and bottom. Letters, 0.025 m. $K\nu\rho\beta a\sigma ias$ is new, but $\Pi\rho\hat{a}\tau\iota s$ occurs at Cyrene, also in C.I.G. 5146, 11 (S.G.D.I. 4835).

KYPBA≷IA≷ ΓPATIΟ ₹

Κυρβασιάς Πράτιος

49. White marble base, bought from Arab, March, 1911. Height, 0.29 m.; length, 0.45 m.; width, 0.38 m. Front and both sides panelled. Back rough worked. Mouldings above and below panels. Letters, 0.03 m. For name Θεύχρηστος at Cyrene, cf. C.I.G. 5135, 5158, 5162. Probably not C.I.G. 5158, which has $\Sigma \omega \sigma \acute{a} \rho \chi \omega$ in line 2. Cf. Smith and Porcher, op. cit. p. 110, No. 6, lines 10, 39, 41, 50; p. 115, No. 21 (S.G.D.I. 4833, 4836, 4843).

Θ] εύχρηστος Σωγένευς 50. Cut on edge of sarcophagus lid, east of camp and close to sarcophagus No. 1. Letters, 0.09 m. and roughly cut. Found April 16, 1911. The name Aristotle occurs also at Cyrene in C.I.G. 5154 = Smith and Porcher, op. cit. p. 116 (S.G.D.I. 4861).



FIGURE 36. — INSCRIPTION No. 50.

'Αριστοτελεις $(= \eta_S)$

51. Over door of tomb at foot of rock-cut stairs, on east side of Wady Tahouna. Letters heavily cut, 0.14 m. high, but some are higher. Εὐρυπυλίδαs is not in Pape, op. cit., but Εὐρύπυλος and Εὐρυπύλη occur.

EYPYPYAIAA

Εὐρυπυλίδα

52. In tomb on east side of Wady Tahouna. Letters very rough, circ. 0.14 m. high.

ΧΩΡΟΦΙΛΩ

Χωροφίλω

53. In same tomb as preceding. Letters, 0.04 m.

EPMIONH LIF

Έρμιόνη ἐ(τῶν) ιγ΄

54. Letters, 0.08 m., very roughly cut and scarcely legible. In same tomb as C.I.G. 5181.

"//////// A T O N

55. Marble base with moulding at top and bottom. Height, 0.35 m.; length, 0.77 m. Letters, 0.04 m.



 $^{\prime}$ E π ιτ $\acute{\epsilon}$ λης Λ υ σ ίο(v)

FIGURE 37. - Inscription No. 55.

56. Fragment of marble slab. Length, 0.17 m.; thickness, 0.055 m. Bought from an Arab.

IIA PI S T

57. Fragment of *poros*. Width, 0.16 m.; thickness, 0.12 m. Letters, 0.03 m. Found April 22, 1911, in Room 4 behind Passage.

TYX;

58. Slab of marble. Length, 0.09 m.; width, 0.05 m.; thickness, 0.02 m. Letters (what remains), 0.02 m. Brought by an Arab, April 24, 1911.

TCYT

59. Badly cut on living rock outside tomb 14. Letters roughly and irregularly cut.

W M H A N H K E N M H T I

X P H ≤ O M E O A K A T A

T O N N O M O N

-ωμη ἀνῆκεν μητι ν εἰ δὲ μὴ χρησόμεθα κατὰ τὸν νόμον

60. Fragment of marble slab. Length, 0.08 m.; thickness, 0.02 m. Letters, 0.02 m. Bought from Arab.

/ NEII

61. From Gubba (six hours east of Cyrene). Copied and photographed, December 1, 1910, by R. Norton.



FIGURE 38. - INSCRIPTION No. 61.

θεοῦ σεβα[στοῦ] ἔκγονος [Καῦ]σαρ Σεβαστ[ὸς
Γε]ρμανικὸς
5 ἄ]ρχιερεὺς μέ-

 $\gamma \iota$] στος δημ[αρ- $\chi \iota \kappa \hat{\eta}$]ς έξου[σίας [ἔ]νατος αὖ[το]κράτωρ

If expovos (line 2) is used here in the sense of "grandson," the emperor would probably be Claudius or Hadrian, and the date, measured by the ninth tribunician year, 49 or 125 A.D. The style of the letters points rather to the earlier possibility.

62. In same tomb as next one. Cut over door of inner tomb chamber. Letters slightly apicated, about 0.05 m. high. Whole inscription 1.08 m. long.

M Η ΕΝΕΡΕΙΔΕM Η \odot ΕΝΑ \cdot Mη ἐνέρειδε μηθένα

Cf. C.I.G. 5154 = Smith and Porcher, op. cit. p. 116, No. 27 (S.G.D.I. 4861): $\mu\eta\theta\dot{\epsilon}\nu a\ \dot{\epsilon}\nu\tau\dot{\epsilon}\theta\eta$.

63. Marble block (base of statue?). Length, 0.56 m.; height, 0.32 m. (height of flat surface, 0.21 m.); thickness, 0.35 m. Moulding at top and bottom. Description and copy by R. Norton. "In tombs on right of road to Turt, about two

miles and a half from Cyrene. January 24, 1911." Letters, 0.04 m. high, and slightly apicated.

API STOKΛΕΙΑ ΜΕΝΕ STPATΩ 'Αριστύκλεια Μενεστράτω

64. On the lintel of a rock-cut tomb, about five minutes southwest of camp. Length, 0.69 m.; height, 0.085 m. Height of letters, about 0.04 m.

Λύσειχος Αυσιμάχω έτων ν

Λύσειχος is not given in Pape-Benseler, Gr. Eigennamen, but cf. $\Lambda v \sigma i \chi a$ at Thespiae (I. G. VII, 2148). De Cou and Norton read $\Lambda v o \mu a \chi \omega$ (an unknown name). Probably it should be $\Lambda v \sigma \iota \mu a \chi \omega$, since CI would resemble O.

65. On a stele of white (probably Parian) marble set in the right side of the gate of a courtyard, about ten minutes west of camp, on east side of Wady Zaghonia. Found November, 1910. Height of stele, 1.00 m.; width, 0.345 m.; thickness, 0.235 m. Smooth on all sides. Moulding at top on three sides. Height of letters, 0.025 m. to 0.047 m.

K· ΠΛωΤΗΝΟ S· ΜΑΚΟΙ L Ξ S T E I A A S I A L N T A W T H N A A S I A L K T A Y A A A · L K B ·

Κ. Πλωτῆνος $\mathsf{L}\zeta$ · Μακειστεία 'Ασία $\mathsf{L} v$ · Πλωτῆνα 'Ασία $\mathsf{L} \kappa$ Πακωνία Παῦλλα $\mathsf{L} \kappa \kappa \kappa$

66. On marble base, brought to camp, April 26, 1911. Width, 0.48 m.; height, 0.24 m. Letters, 0.02 m. Λαοκλής not in Pape-Benseler, op. cit.

A P X I A ≤ Λ A O K Λ E Y ≤ ' Αρχίας Λαοκλεῦς 67. Marble base, top and bottom much battered. Width of inscription panel, 0.48 m.; height of block, 0.37 m.; letters, 0.03 m. Hole in top surface for fixing statue, with channel running towards front to let out solder.

ΕΥΒΩΛΟ ΑΓΟΛΛΟΔΩΡΟ Εὔβωλο[ς
'Απολλοδώρ[ω

68.

TCHCTIOC

Π. Σήστιος

For name $\Sigma \dot{\eta} \sigma \tau \iota \sigma s$ at Cyrene, cf. C.I.G. 5208, 5276, 5277, 5297.

Here it is convenient to add the inscriptions copied by Mr. Richard Norton during the spring of 1909, when he visited the Cyrenaica on the yacht *Utowana*, belonging to Mr. A. V. Armour; and also an inscription found in 1910 at Apollonia (No. 69). Except in the case of one or two short inscriptions copied by Mr. Oric Bates, the copies, in most cases without measurements, were made by Mr. Norton. Mr. David Hogarth rendered much help and Mr. C. H. Turner gave valuable advice for No. 104.

69. Apollonia. Found October, 1910, northeast of the modern village and transported to the house of Senussi Effendi. Block of white marble, the left half of which is missing. Height of inscription, 0.185 m.; length, 0.36 m.; height of letters, 0.03 m. to 0.034 m.

αὖτοκράτορα Κ]αίσαρα Λ· [Α]ὖρήλιον Κόμμοδον Σ]εβαστὸν ἀρχιερέα ἡ πό]λις [ἀΑπολλω]νία.

70. In cemetery west of town, stone with MAYKM

71.

M N /////

. . . ις ἡ ἀ[δελφὴ μν[ήμης χάριν]

Over niche, below windmill, on west side.

72.

T I IN M A I ^ I N A I M I I N F I F A · N 1 T · B I

In cemetery west of town.

73.

LOH1ÅAN:K-F BEPENEIKA AHMOCIWNWN LE

ἔτους οη΄, Φαλ(μουθί) κ**γ΄** Βερενε΄κα δημοσίων ων ἔτους ε

In cemetery west of town. Berenice is a natural name in the Cyrenaica, whence came the famous Berenice, wife of Ptolemy Euergetes. There was a town there by that name.

74. On a marble block serving as left jamb of door of hut near soldiers' quarters. Right end broken. Cross on left end. Edges at top and bottom broken.

) A VAULLION . THY MILLS / /

ENOA TO AYFAMENOETICALIAPTA DA CA CTPINCPF

AYOLCENNATALT NEY MATIKALCAOXIALE . .

TONKTICTEINKEANHNTA AOXONKALTEKNA OY/

MICJONANA ZTOYTONEWIO EPATTONTIALA OYC

ἔνθ' ἀποδυσάμενός τις ἁμαρτάδας ἃς πρὶν ἔρε[ξε αὖθις γεννᾶται πνευματικαῖς λοχ(ε)ίαις τὸν κτίστην κεδνήν τ' ἄλοχον καὶ τέκνα φύ[λασσε μισθὸν, "Αναξ, τοῦτον σῷ θεράποντι διδούς.

The thought in these elegiac couplets reminds one of the New Testament, and yet the language is different. "Aloxos, $\lambda o \chi \epsilon i a$, $\mathring{a} v a \xi$, etc., are not New Testament words. "Ava ξ is very unusual for the Lord, $K \acute{v} \rho \iota \epsilon$ being the common expression, but probably it refers to Christ rather than to Apollo, who was often addressed as $\mathring{a} v a \xi$ 'A $\pi \acute{o} \lambda \lambda \omega \nu$. At Apollonia, Apollo's

town, the epithet could easily have been borrowed for Christ. In the last line in Mr. Norton's copy the word after $\tau o \hat{v} \tau o v$ looks like $\sigma \hat{\omega} v$ with a ligature of the last two letters WV; but since no other ligature occurs, I have adopted the reading EWI. The use of $\sigma \hat{\omega} s$ (sound or secure), however, in this connection would be quite possible; cf. Arist. Lys. 488: $\dot{a}\rho\gamma\dot{v}\rho\iota o\nu \sigma\hat{\omega}\nu$; Plato, Rep. 333 C; Eur. Hec. 994; Xen. Cyr. VII, 4, 13; C.I. G. 82, 14.

In regard to the date of these inscriptions from the tombs west of Apollonia, it should be noted that in several cases the seven-branched candlestick is roughly incised at the side of the entrance. Many of the tombs look as though they had been re-used, as those at Cyrene have been, and it seems not improbable that this cemetery was the one used originally by the Greek colonists. No. 74 probably dates as late as the age of Hadrian.

Tolmeta. From Tolmeta (= ancient Ptolemais, cf. Am. J. Phil. V, pp. 4 f.) are the following:

75. On block upside down in late wall east of temple.

FDIFICANDAS E I VALVAS ET HYDI

a]edificandas e[t] valvas et hyd[ragogium]

76. In same wall as preceding. Letters, 0.23 m. high.

SII

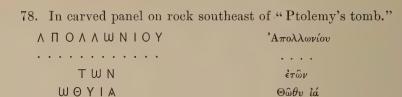
Cols iil

- 77. On sandstone grave stele of warrior.

below

(b) Φ λ A B I A N O Σ O I K O I₂ O M O Σ

Φλαβιανός οἰκοδόμος



79.

LIMH NAC KIW LIF

80. On north side.

ΧΟΙΑΧ]Χοιαχ[ί
ΙΟΑΝΗ Ε
$$\stackrel{\text{I}}{}$$
 Ιοάνης $(\hat{\epsilon}\tau\hat{\omega}\nu)$ ἰδ΄

81. On rear of preceding.

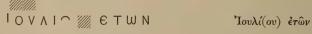
$$\Gamma$$
 \mid О \vee \wedge \mid \sqcup $\Gamma(ai\varphi)$ ' $\mathrm{Iov}\lambda i\varphi$

82. Over door (and divided by mouldings) on south side.

$$\Lambda$$
 $W//N$ O C $Φ_{\ell}$ $\lambda ωνος$

83. On east side of door of preceding. For name $\Phi i \lambda \omega \nu$ at Cyrene cf. S.G.D.I. 4846.

84. On rock southeast of "Ptolemy's Tomb," beside door of soldiers' house.



85. Same as preceding.

86. In niche above C.I.G. 5232. The name Stephanus occurs also in Smith and Porcher, op. cit. p. 67, 4 (= C.I.G. 5235, S.G.D.I. 4868).

$$\overline{\mathsf{K}}$$
 C T E $\kappa(a i)$ $\Sigma \tau \epsilon$ $\phi a \nu [os$

87. East side of cemetery. Last A broken from rest. The name $\Delta \rho \acute{a} \kappa \omega \nu$ occurs also in C.I.G. 5198.

ΔPAKONTO(;//A

Δράκοντος ΑΓ

88. On north side.

AABOYKI... EYTYX

89.

ΚΔ ΚΟΔΟΜΗC \ΝΗ*/*/\ΙΟΝ κδ΄ ὧ]κοδόμησ[εν τὸ μ]νημῖον

90.

TICAN € N
Θ Α Δ € Κ Α Κ Ο Ν
Τ € Ι Π Ο Υ Η C Η Ο Π Λ Ο
Τ Ѡ Ν Ѡ Τ Ο Ι Χ Ѡ
Ο Υ Κ Α Ι Π Α Ν
Τ Α C \ Θ € 7 Ο Ι

δς] τις ἃν ἐνθάδε κακόν τει πουήσ' ἢ ὅπλον τοίχω καὶ πάν-

KA1 MHTYXAITO OABHC

καὶ $[\tau]\hat{\eta}[\iota]$ Τύχαι τὸ?

For $\pi o \nu \eta \sigma \eta$ instead of $\pi o \iota \eta \sigma \epsilon \iota$, cf. $\dot{a} \nu \dot{\nu} \xi a \iota$ for $\dot{a} \nu o \iota \xi a \iota$ in C.I.G. 5241; J.H.S. XXVIII (1908), p. 183; and p. 196 below. In B.C.H. XXXIII (1909), p. 67, we have $\pi \nu \eta \sigma \iota$. ν for $o\iota$ is very common; cf. references below, p. 196. For $\nu = o\iota$ and $o\nu = \nu$, cf. Mayser, $Gram.\ der\ Gr.\ Pap.$ pp. 110 f.; 116 f.

Lebida.

91. On block near standing columns, 0.93 m. × 0.52 m. All edges cut. Upper letters, 0.16 m.; lower ones, 0.11 m. high.

TIALIS

92. On block near standing columns; 0.34 m. \times 0.71 m. Edges cut.

DEDICAVITIMP

93. On block used as flagstone near modern quay, 0.65 m. \times 0.45 m. Letters, 0.10 m. high.

O AVG PIO PONT MAXII

94. On block in wall towards the sea, near standing columns. The stone could not be measured, but is about same size as the following.

BPOT

95. On similar block, $0.50 \text{ m.} \times 0.72 \text{ m.}$

0 S

96. On similar block in wall; $0.96 \text{ m.} \times 0.50 \text{ m.}$ Letters, 0.16 m. high.

TIIMP

97. On block 2.21 m. \times 0.58 m. Letters, 0.35 m. high.

HERENN

98. On block 0.51 m. \times 0.67 m. Letters, 0.09 m. and 0.08 m. high.

N I]n:

ONIAE Col]oniae [Ulpiae Traianae Leptis Magnae

VODONAVIT no]vo donavit
IPARTHICE i] Parthice

The foregoing not improbably all belong, as Mr. Hogarth suggests, to one inscription, though it cannot be certainly restored till more pieces are found. Perhaps it began with No. 91, though how to bring the second line into relation with the following lines is not clear:

Mar]tialis dedicavit Imp. [Caes refici]endum

Q. Traian]o Aug. Pio. Pont. Max. In[victo Trib. Pot. Cos. II Imp[Procos. et. Q] Herrenn[io Etrusco Messio Decio Caes. et C. Vale]nti[Col]oniae [Ulpiae Traianae Leptis Magnae no]vo donavit[

i] Parthice

99. On broken blocks, which probably join together.

(a) PO and TES

On block 0.85 m. \times 0.49 m. Letters, 0.12 m. high.

(b) SERNIO

100. On small base in the sand near modern quay.

MVLPIVSBAISHVS CERIALISMACARI BONEMAEMORIAEVI RI

M. Ulpius Baispus (?) Cerialis Macarisi filius bone maemoriae viri.

101. On much weathered block (1.01 m. \times 0.50 m.) near shore below standing columns.

> \ M C C I O S S O N C V M P A N T $I \wedge I$

> > UIT

Benghazi.

102. On stele in house of British consul.

TTO A E MITA < HPAKAEIAA ⊙ E ₹ ₹ A Λ O ₹

Πολεμίτας Ήρακλείδα Θεσσαλός

103. On cippus in dealer's house.

ЛСПА CIAC

'Ασπασίας

104. On slab of white marble 0.49 m. × 0.95 m. About 0.07 m. thick. Letters, 0.03 m. high. It is now in the American School of Classical Studies in Rome.

(U V T W N E N T A Y O A O E IHCONTONOIKONAYTOY EANIYONENTENEAMIA KAITHN A TWNO COKTONWNIOY A A IWNKA **PONTIZONTWNTOYNAOYCOYTOY** I E O E O T O K E M H E K A E I T H T O F E N O C E TENIACTOYAIWNOCAMHN+

> "Ην τις ἀδικήση τὸν ναὸν] σοῦ τῶν ἐνταῦθα θεοσεβούντων, καταπάτ]ησον τὸν οἶκον αὐτοῦ καὶ τὸ ὄνομα αὐτοῦ ἐ]ξαλίψον ἐν γενεᾶ μιᾶ καὶ τὴν μερίδα αὐτοῦ μετ α των θεοκτόνων Ἰουδαίων κα-5 τάθες, τῶν δὲ] φροντιζόντων τοῦ ναοῦ σοῦ τούτου, παρθέν ε θεοτόκε, μη έκλείτη το γένος εως της συν]τελ(ε)ίας τοῦ αἰῶνος · ἀμήν.

Line 2, καταπάτησον suggested by Professor W. M. Ramsay. Line 4, cf. Matt. xxiv 51: τὸ μέρος αὐτοῦ μετὰ τῶν ὑποκριτῶν θήσει; and Luke xii 46: τὸ μέρος αὐτοῦ μετὰ τῶν ἀπίστων θήσει. In the above restoration we have been much helped by Mr. C. H. Turner, Fellow of Magdalen College, Oxford, to whom Mr. Hogarth showed a photograph of the inscription. Professor Ramsay considers the inscription to be of the time of Justinian. The person from whom the stone was bought said it had been found at Cyrene. This inscription shows the ecclesiastical use of the language of the curse-tablets. For the cursing of one's οἶκος or οἶκία, cf. I.G. III, 3, Nos. 53, 59, 69; Audollent, Defixionum Tabellae, No. 85 A; and a curse in the Royal Ontario Museum of Toronto, published by Professor Fox in A.J.P. XXXIV, 1913, pp. 76 f.; cf. Zechariah c.v.; Her. VI, 86. The reference to the Jews is also of great interest.

105. At Benghazi, in the house of the British consul, Mr. Jones.



Καλλοῦς Φιλόστ<u>ρα-</u> τος L κη

 $L_{\rho}\lambda\delta$

FIGURE 39. - Inscription No. 105.

For the Actian epoch (A.U.C. 723-24), so common in these inscriptions, from which the year 134 is reckoned, cf. C.I.G. 5144, 5145 a, line 2. Probably $Ka\lambda\lambda o\hat{v}$ s is genitive of the feminine $Ka\lambda\lambda \hat{\omega}$ rather than of the Egyptian name $Ka\lambda\lambda o$ s or $Ka\lambda\lambda v$ s (cf. Pape-Benseler, op. cit. s.v.; and Fick-Bechtel, Gr.

Personennamen, p. 158). Κάλλους = Γάλλος is also improbable. For the use of the mother's name instead of the father's, cf. references in A.J.A. XVI, 1912, p. 35, and on μητρόθεν καλεῦσθαι cf. also Braunstein, Die politische Wirksamkeit der gr. Frau, pp. 72 f.; 'Αρχ. 'Εφ. 1911, p. 58; Her. I, 170; Polybius, XII, 5 f. etc. Since, however, this is rather the custom in Asia Minor than in the Cyrenaica, De Cou's suggestion that we should translate "Callo's slave Philostratus" is a good one.

Tokra or Teucheira.

The following inscriptions copied at Tokra, which I have not been able to find in the C.I.G., are unpublished, so far as I know.

106. At Tokra in tower of the wall, south of the guard house. Block, about 1.25 m. long. Letters, about 0.20 m. high.

AKEAAC

'Aκέλ[a]s for 'Ακέλης or possibly $M[a[\rho]$ κελλ[os or $\mu]$ aκελλ[ον (macellum).

107. On block of sandstone, upside down. Diameter of wreath, inside of which is inscription, about 0.30 m. In tower southwest of guard house near palms. Copy probably inaccurate.

L ΚΑΦΛ ΑШСКАΝ ΤΟ Γ € ΦΛ Ο C

 $\mathsf{L}_{\kappa a} \Phi[a\mu\epsilon\nu\grave{\omega}\theta][\kappa]$ ' $\mathsf{A}\nu\tau[\acute{\omega}\nu\iota\sigma]\Phi\lambda[a\sigma\hat{\nu}]\sigma$

108. In quarry just behind barracks.

СПІКН ЕЄКДОҮ ЛНСЛПТ ҮЛЛЛС

'E] $\pi\iota\kappa[\lambda]\hat{\eta}s$, a name which occurs in Smith and Porcher, op. cit. p. 110, No. 6, line 23, or $\Sigma\pi\iota\kappa\eta s$ or $E\pi\iota\kappa\dot{\eta}s$ ἐκ δού λης 'Αντ|ύλλας.

109. In the third quarry on the south side.

Καλλιέτειρα is a new name, but cf. Καλλιθειρίς in Fick-Bechtel, op. cit. p. 157.

110. Same place as preceding.

The name Aristarchus at Cyrene occurs also in C.I.G. 5135.

111. In quarry just behind guard house.

112. In south wall of guard house.

113. In quarry north of city.

114. In same place as preceding. Possibly we can read as follows:

115. In same place as preceding.

Line 2 uncertain. Possibly we should read K. $\Gamma a \lambda \iota \eta \nu \delta s$. For $K \iota \lambda \lambda \iota \eta \nu \delta s$, cf. No. 111.

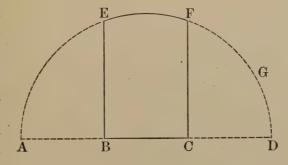
Corrections to C.I.G.

From the notes of Mr. De Cou I have been able to make the following corrections to the inscriptions from the Cyrenaica published in *C.I. G.* 5129 f., which may prove useful for the new Corpus.

C.I. G. 5141–5142: In 5141, line 4, C.I. G. has Γ instead of T and ε , not ε , occurs throughout. In 5142, col. 2, line 1, for F read Γ; line 2, for ε YITATEY = $\dot{\epsilon}[\pi]\iota[\sigma]\tau$ aτεύοντος read ΘΥΠΑΤΕΥ = $\dot{a}\nu]\theta\nu\pi$ aτεύοντος; line 5, for ΘΑΝΟ read ΟΑΝΘΥ-ΠΑΤΟ. Probably in the place of o at the beginning and at the end, we should read Ω , and restore, instead of Π ομπωνιαν $\dot{\omega}$

τῶ κ[aλῶς ἀπο]θανό[ντος, Πομπωνιaνῶτῶκ[aλῶ]ἀνθνπάτ[ω, as do Smith and Porcher, op. cit. p. 113, No. 15.

These two inscriptions are from the garden, just below the Fountain of Apollo, on a recut drum of a



column, 0.59 m. high. *C.I.G.* 5141 is on the flat cut back, and 5142 on the front curved side. The left side of both inscriptions is now missing. Assuming that the shape of the block (in section) was as in the annexed sketch, *C.I.G.* 5141 occupied the surface E–G, 5142 the surface A–C. At the time (1827) that the copies used for the *C.I.G.* were made, a fracture already existed at the points F and B. The slabs then loosened were subsequently cut off, leaving the block E–F to B–C with only the right side of either inscription.

5144, col. 2. Block found just below the fountain, 0.81 m. high, 0.75 m. wide. The side of the block opposite the inscription is cut for the insertion of a draped figure. Col. 2, l. 2, read APTISΘENEYS for ΠΙΣΘΕΝΕΥΣ. Line 3 read NOSYIOS-PAΓΚΑΡΣ for NOSYOISΠΑΓΚΑΠΣ, Πάγκαρ(πο)s perhaps better than Πάγκα[λο]s, the reading of C.I.G., or Παγκλη̂s in S.G.D.I. 4846. Line 5, read ΚΛΑΥΔΙΟΣΙΣΤΡΟΣ for ΚΑΥ-ΔΙΟΣΙΣΤΡ... Σ. Line 9, read M. ΣΙΝΙΟΣΦΙΛΩΝΟ for I... ΣΙΝΙΟΣ... ΙΑΩΝΟ. In C.I.G. read A for A in every case. Lines 9-11 in col. 2 should read as lines 9-11 in col. 1 in the C.I.G. On the left side of C.I.G. 5144, col. 2, is an inscription which is not given in the C.I.G.

The question as to the provenance of *C.I.G.* 5144, col. 1, lines 1–8 and 14–18 will have to be examined again. Mr. Norton feels certain that there are at present no inscriptions on the block other than column 2 and that given above. He suggests that the missing lines may have been on other blocks above and below. It is not certain how much of the block is lacking at the top. What is certain is that the stone found by the Americans is the same as that seen by Della Cella, and his readings in general are confirmed (cf. *S.G.D.I.* 4846).

C.I.G. 5153: Marble stele found in the tomb called Gnesia (the church), January, 1911. Remains of moulding at top. Height, 0.95 m.; width, 0.34 m. Letters, 0.02 m. Wrongly classified among the unpublished inscriptions. The sigma has the lower and upper bars spread, not parallel as in C.I.G. In line 2 read $\Delta \text{ENIO} \leq$ for $\text{INIO} \Sigma = \Delta \epsilon(i) \nu \iota o s$. S.G.D.I. 4864 also wrongly reads $\Delta \epsilon \iota \nu \iota o s$ in 1.4.



FIGURE 40. — C.I.G. 5153.

C.I.G. 5167: Cf. No. 38 above. It should be $\Sigma \iota \delta \omega \nu \iota \sigma \sigma \sigma = \Sigma \epsilon \lambda \nu \mu a \iota \omega$.

C.I.G. 5178: From tomb east of the camp. $\Pi TO\Lambda MAIOC$ $\Pi^{-}.\Lambda MAIOY$. The reading $\Pi \tau o\lambda(\epsilon) \mu a \hat{l}os$ $\Pi \tau o\lambda(\epsilon) \mu a \hat{l}os$, rather than $\Pi[\nu \rho a] \mu a \hat{l}os$ $\Pi[\nu \rho a] \mu a \hat{l}ov$ as in C.I.G., seems certain. It is probable that the ϵ came to be but faintly pronounced; cf. modern Tolmeta from Ptolemais. Ptolemaeus occurs also as a name in Smith and Porcher, $op.\ cit.\ p.\ 75$. Of KAAITYXHIN at the left, only Λ remains. Above on same face of the block is the inscription $\Pi CHCTIOC$, probably not (as De Cou thought) the same as C.I.G. 5297, where we have $\Gamma CHCTOC$.

C.I.G. 5194: Last letter in first line is $\Theta = OC$ (Kaloapos).

The inscription is above the door of a tomb on the south side. Letters, 0.13 m.

C.I.G. 5199: Line 2, there is space for one letter between K and Y; line 6 the second letter is Z.

C.I.G. 5200 b. There are so many mistakes in the copy in the C.I.G. (from Pacho) that it is simpler to reprint the whole text.

AΦΡΟΔΕΙCΑΙΚΑΙΠΤ. ΕΜΑΙCE WNΔΥΟΕΝΘΑΔΕΚΕΙΤΑΙ
ΤΑΥΤΗCΟΠΑΤΗΡΑΠΑΙΣΡΕΥΕ ΤΑΥΤΑΛΕΓΜΝΟCANA. (ZH
ΤΟΛΑΡΝΑΚΙΟΝΤΟΥΤΟΠΟ ΚΑΙΘΑ(HTINAEICOICEIT_W
ΙΕΡΨΤΑΤΨΤΑΜΕΙΨΔΗΝΑΡΙΑΠ ΝΤΑΙΟCIA ΘΑΡCΕΙ
ΗΡΨΙCΟΥΔΕΙCΑΘΑ · ΤΟC

' Αφροδείσα [ἡ] καὶ Πτ(ολ]εμαὶς ἐτῶν δύο ἐνθάδε κεῖται ταύτης ὁ πατὴρ ἀπα[γ]ορεύε[ι] ταῦτα λέγων ' ὁς ἂν ἀ[ν]ύξη τὸ λαρνάκιον τοῦτό πο[τε] καὶ θά[ψ]η τινά, εἰσοίσει τῷ ἱερωτάτῳ ταμείῳ δηνάρια πεντακόσια ' θάρσει, ἡρωίς, οὐδεὶς ἀθά[να]τος.

This inscription is just below C.I.G. 5204. 'Αφροδείσα (another form probably of $A\phi\rho\sigma\delta\epsilon\iota\sigma\iota\alpha$) is found also in J.H.S. XXVIII, 1908, p. 198. In C.I.G. in line 1 we have \bar{a} [$\epsilon\tau$] o [v]s $\mathrm{E}i[\rho]\dot{a}[\nu]a$ [$\mathrm{K}a\pi i\tau]\omega\nu[o]s$. On the use of two names, cf. above. In line $3 \tau o \hat{\nu} \tau o \pi o [\tau \epsilon]$ is a better restoration than $\tau o \hat{\nu}$ $\tau \phi \pi o \nu$ in C.I.G. On the use of $\nu = o \iota$ in $\partial \nu \psi \xi \eta$ for $\partial \nu o \iota \xi \eta$, cf. C.I.G. 5241; Judeich, Altertümer von Hierapolis, p. 104, No. 97; J.H.S. XXVIII, 1908, p. 183; Meisterhans-Schwyzer, Gr. der Att. Ins. p. 59; Bechtel, Aeolica, p. 54; Nachmanson, Laute und Formen der Magnetischen Inschriften, p. 45; Beiträge zur Kenntnis der Altgriechischen Volkssprache, pp. 49, 61; Mayser, Gram. der Gr. Papyri, pp. 110 f.; Ath. Mitt. XXXVI, 1911, p. 293; Jh. Oest. Arch. I. Beiblatt, XIV, 1911, p. 108; B.C.H. XXXVI, 1912, p. 619. This inscription reminds one of the type so frequent in Asia Minor, and especially Lydia (cf. Am. J. Phil. XXXI, 1910, pp. 402 f., and references there; cf. also B. C.H. XXXVI, 1912, pp. 606 ff.; Chapot, La Prov. Rom. Proc. d'Asie, pp. 513 ff.; Daremberg et Saglio, Dict. s.v. Sepulcri Violatio; R. Arch. XX, 1912, pp. 257 ff.). On ήρωίς like $\eta \rho \omega s$ as applied to the deceased, cf. above. The sentiment at the end is frequent in Greek literature; cf. Eur. Alcestis,

419, 782 f.; Anth. Pal. XI, 62; from Africa, C.I.L. VIII, 13392 (οὐδὶ[s ἀθά]νατος ε[ἰψύχι]); 17584 (οὐδεὶς ἀθάνατος). So in Hamlet, 1, 2, 7: "Tis common; all that lives must die." Εὐψύχει is the usual expression in African inscriptions, though θάρσει occurs in C.I.G. 4827, cf. C.I.L. VIII, 10536, 10998, 12580, 12924, 13392, 18213, but θάρσει is more literary; cf. Eur. Alc. 38, 326. On mummy labels (cf. Le Blant, R. Arch. 1874 and 1875) εὐψύχει, not θάρσει, occurs. θάρσει ψυχή·οὐδεὶς ἀθάνατος occurs frequently in Syrian epitaphs, cf. Le Bas-Wadd., Ins. d'As. Min. 1829, 1897, 2459, etc.; Rh. Mus. XXXIV, 1879, p. 196; C.I.G. 4463; Prentice, Gr. and Latin Ins. of Syria (exp. 1899–1900), Nos. 241, 317; Arch. Rel. VIII, 1905, pp. 390 f.; X, 1907, pp. 393 f.; R. Ét. Gr. VII, 1894, p. 296.

C.I.G. 5204 from Pacho is very different from the reading of Mr. Norton.

I OPA II WANHCEYΦPA NOPOCF ^HMWNI(V L OYΔΙΟΝΕΥΦΡΑΝΟΡΟC LĪB LĪB ΦΑΡΑΛ ΚΘΕΟΔΟ ΤΟΓΕΥΦΡΑ ΝΟΡΟC ΓΛΈ

∟ ιγ΄ [Χ]ο(ι)ὰ [κ οτ [Μεσ]ορά- -ωάνης Εὖφράνορος ∟ Χαιρ]ήμων ∟κ? ∟ -ουδιον Εὖφράνορος ∟ ιβ΄ ∟ ιβ΄ Φαρμ[ουθι] κ Θεόδοτος Εὖφράνορος ∟ ιε΄

C.I.G. 5207 should read:

KAAAIBIA ETWN LP

Καλλιβία ἐτῶν ρ΄

AMAPANTOCETWNZ

'Αμαραντὸς ἐτῶν ξ΄

It is on the right of C.I.G. 5194.

C.I.G. 5213. On the south side of necropolis at Tolmeta. Norton read in first line for second letter A, not A, and line 2 for fourth letter A, not A.

C.I.G. 5216. On north side of cemetery at Tolmeta.

ILBA, KACTAXAK KIOY IME Σταλακ-

κίου ἐτῶν μέ

C.I.G. 5225, line 1, for XOIAY read XOIAXI.

C.I.G. 5232 is above 5235. In line 1 read \overline{M} ; in line 3 T for Γ , and 0 for C; in line 4 A for Δ .

C.I.G. 5235: Line 1 (1st letter) $\overline{\Gamma}$, (5th) Λ , (8th) $\mathfrak E$, as in Smith and Porcher, (10th) $\mathsf T$. Line 2, (3d and 4th letters) $\mathsf A\mathsf P$, (21st and 22d) $\mathsf I\mathsf T$. Line 3, (20th letter) after the $\mathsf I$ is an $\mathsf A$, $\mathsf I\Delta\mathsf I\Delta\mathsf N$. A very incorrect copy is given in Smith and Porcher, op. eit. p. 67.

· C.I.G. 5238 should read:

C A A B I A ∆ W C I ⊙ € A | M H Σαλβία Δωσιθέα ἐτῶν μη΄

The C.I.G. has $[\Phi \lambda a]\beta ia$, and Smith and Porcher, op. cit. p. 67, pl. 54, 1st line, fourth from left, give a very incorrect and quite different facsimile.

C.I.G. 5271, col. 1, line 3, read TOSBAX for TOSTLAX. In the fourth inscription of C.I.G. 5271, to right of preceding one, lines 3, 4, De Cou read KAAAAIE|PAS[K\Delta = Ka\lambda(a)\leftass. But the reading of the C.I.G., KAAAME|PAS = Ka\lambda\lefta\lefta\rho s, seems to me better, in view of the African name Kalemerus Maurus; cf. Thieling, op. cit. p. 101, and C.I.L. VIII, 2929. Ka\lambda\lambda\lefta\rho a is unknown as a name.

C.I.G. 5275, line 1, should have L at beginning, confirming the restoration, and line 3 Λ for A, confirming $K\lambda\nu\tau\sigma\hat{\nu}s$. In line 4, De Cou read A for Λ , but ΛH seems more probable than AH.

C.I.G. 5289, col. 3, is correct except in last line, where read LIH = L $\iota\eta'$ rather than L $\bar{\eta}$. In fourth inscription, lines 3, 4, read ΔΗΜΑ|ΠΡΩΡΟ = $\Delta\eta\mu\hat{a}[s]$ Πρώρου, not $\Delta\eta\mu a[\iota\nu]\epsilon[\tau]$ ο[s as in C.I.G. For name Πρώροs = Φρούροs, cf. Fick-Bechtel, Gr. Personenn. 243; C.I.G. 5157 and 5289; Smith and Porcher, op. cit. p. 110, No. 6, lines 20, 55 (Πρώροs Κύκνω); p. 111, No. 7, line 13 (S.G.D.I. 4833, 4834).

C.I.G. 5296, line 2, at end read Σ for Y; line 4, I for K; line 5, Λ for Λ ; line 6, KANNIKEA for KANATKNE $\Lambda = Ka\lambda - [\lambda \ell] | \kappa \lambda \epsilon a$; line 8, read LE Δ , missing in C.I.G.

C.I. G. 5298, line 1. De Cou's copy is not so complete as, but different from, C.I. G. line 1. $\Theta \in Y$ $N \Theta A \Delta \in K \in .$. . . CENTPQTOICNAPICTOC; line 2, CK THCETTOC; line 2, CK THCETTOC, $\Theta \epsilon \nu [\pi \rho \sigma \sigma \sigma s \epsilon] \nu \theta \dot{\alpha} \delta \epsilon \kappa \epsilon [\hat{\iota} \tau a \iota \delta] s \dot{\epsilon} \nu \pi \rho \dot{\omega} \tau \sigma \iota \sigma \iota \nu \dot{\alpha} \rho \iota \sigma \tau \sigma s$; $\dot{\delta} \kappa [\tau \omega \kappa a \iota \delta \kappa \epsilon] \tau \eta s \dot{\epsilon} \pi \lambda \epsilon \tau \sigma [\pi \dot{\alpha}] \nu [\tau] a \sigma \sigma \phi \dot{\sigma} s$. This is much better than the many various readings given in the C.I. G. The inscription is at Tokra in quarry behind the guard house.

C.I.G. 5305, line 1, read Φ for T. For $\beta \iota'$ (numeral before decimal), cf. above and C.I.G. 5325, 5351. Line 3, De Cou's copy reads EPENAOY; C.I.G. has EPENNOY = ${}^{\iota}E_{\rho\epsilon\nu\nu}(\ell)o\nu$, which seems better. In last line read LIO, missing in C.I.G.

C.I.G. 5318, line 1, read A for A; Φ for final I. The form $\Phi \lambda aov \gamma \acute{a} \nu \iota o s = (\Phi \lambda aov(\ddot{\iota}) a \nu \acute{o} s)$ seems certain. Perhaps the name has been corrupted and γ developed, as often in Modern Greek; cf. $\nu o \gamma \acute{a} \epsilon \iota$ for $\nu o \acute{a} \epsilon \iota = \nu o \epsilon \hat{\iota}$.

C.I. G. 5319, line 3, for \top read 1. C.I. G. 5321, De Cou's copy reads:

LIΠΛΟ NIBA ΔΟΡΚ ΑΡ

Instead of $E[\dot{\nu}\nu]\delta\eta$ $K\lambda\dot{\eta}[\mu\epsilon\nu\tau\sigma\sigma$, De Cou suggested 'A $[\rho\dot{\iota}]\delta\sigma\rho\kappa$ [os] or $E[\dot{\nu}]\delta\delta\rho\kappa$ [$\omega\nu$] 'A $\rho[\dot{\iota}\mu\mu\alpha$, which, however, are unknown names.

C.I.G. 5344, col. 3, line 1, for Θ read Π .

C.I.G. 5351, line 1, for I read E; line 2, for Δ E read Δ K (= $\kappa\delta'$; cf. above); line 3, for Φ A Θ read Φ IA Θ .

C.I.G. 5358 c, line 3, for E read L.

The copies given in C.I.G. 5221, 5325, 5336, 5341 are absolutely correct. Two of the inscriptions published by Smith and Porcher, op. cit. pl. 81, No. 13, and pl. 84, No. 24, are now in a dismantled tomb which is used as a stable on the left side of the road leading to the Roman Theatre. No. 13 is in ex-

actly the same position as when copied by Smith and Porcher. No. 24 has been much injured. In the uninjured part the only difference from Smith and Porcher's copy is at the beginning of lines 6 and 8, where there is no $\overline{\mathsf{L}}$ or trace of such a sign, according to Mr. Norton.

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GIOTTO'S FIRST BIBLICAL SUBJECT IN THE ARENA CHAPEL

As one enters the Arena Chapel at Padua the most prominent fresco is that which adorns the triumphal arch immediately above the Annunciation. It represents a celestial potentate enthroned and surrounded by hovering angels, four of whom are in a more distinct attitude of attention (Fig. 1). This delightful composition, in the swaving lines of which Giotto anticipates the later perfections of Fra Angelico, has not received the attention to which both by intrinsic beauty and topical importance it is entitled. Ruskin in his essay for the Arundel Society, published in 1854, Crowe and Cavalcaselle, Thode, 2 Brousolle, 3 Dobbert, 4 Pératé, 5 and Sirén 6 were content with the title Christ surrounded by Angels. Schnaase-Dobbert,7 Moschetti, 8 Bayet, 9 and others have adopted the more satisfactory designation God the Father surrounded by Angels. this does not account for the prominence given to the composition in a scheme that is severely logical. Adolfo Venturi 10 first perceived the fact that this fresco, being the pendant of the great Last Judgment on the entrance wall, must be the prologue of a scheme of which the Last Judgment is the epilogue. And further, noting that the figure who stands at God's left hand is identical with the Archangel Gabriel in the Annunciation below, Venturi interpreted the subject correctly as God despatching Gabriel to announce the Incarnation to the

¹ Hutton, Ed. I, p. 229.
² Giotto, Leipzig, 1899, p. 106.

³ Les Fresques de l'Arena, Paris, 1905, p. 7.

⁴ Dohme, Kunst u. Künstler, Italien, I, p. 19.

 $^{^5}$ Michel, ${\it Histoire~de~l'Art},$ II, p. 799.

⁶ Giotto, Stockholm, 1906, p. 49.

⁷ Allge. Gesch. d. Kunst (1876), vol. V, p. 365.

⁸ La Cappella degli Scrovegni, Florence, 1904, p. 54.

⁹ Giotto, Paris, 1907, p. 68. ¹⁰ Storia de l' Arte Italiana, V, 323.

elect Virgin. Thus the first subject in the Arena Chapel is God decreeing the Incarnation, the last the final act of judgment and redemption. No more appropriate preface and sequel to the life of Christ and the Virgin as depicted in the



Arena Chapel could be imagined, and Venturi's interpretation seems definitive. It is confirmed by the Gospel narrative, Luke 1, 26, 27, "And in the sixth month the Angel Gabriel was sent from God unto a city of Galilee, named Nazareth, to

a virgin espoused to a man whose name was Joseph, of the house of David, and the Virgin's name was Mary." This subject, though quite rare in art, exists. Emile Mâle notes it in an early fifteenth century manuscript illumination. My friend Professor Keyes of Dartmouth has kindly reported an amplified version of the theme in the famous tenth century homilies of the monk Jacobus. This Greek preacher ventures to put a considerable speech in the mouth of the Almighty which may be read in Rohault de Fleury's French translation. There is, however, no reason to suppose that the subject was ever common or that Giotto followed any immediate iconographic original.

Study of this charming picture of a celestial court long ago convinced me that Giotto's pictorial amplification of the theme was not merely decorative in intention, nor to be explained by the brief words of Luke's Gospel. It seemed likely to me that the subject was based on a literary source, and it was natural to seek first in the famous devotional text which Giotto is known to have followed elsewhere in the Chapel, the "Meditations on the Life of Christ" often, but apparently erroneously, attributed to the great Franciscan saint, Bonaventura.

The first chapter of the Meditations describes the intercession of the angels for mankind. (De solicita pro nobis intercessione Angelorum.) Several angels prostrate themselves before the Most High, reminding him that man has lain long in sin and misery and begging that a means of salvation be found. The case is argued by Truth and Righteousness against man, by Mercy and Peace in his favor. The gentler Virtues finally prevail over the sterner. According to the prophecy of David (Psalm 84, Vulgate version), Mercy and Truth meet together, Righteousness and Peace kiss each other. The celestial court closes with the despatch of Gabriel to Nazareth after long instructions from God. The author of the Meditations alleges the authority of St. Bernard (Homily X, Concerning the

¹ La Sainte Vierge, I, p. 430. The miniature is described as follows: Trois personnages assis sur un même trône et representant probablement la très sainte Trinité environnée d'anges, d'archanges et de seraphins. Au bas l'archange reçoit l'ordre, à gauche il part en volant. The recent Vatican publication of these Homilies is not accessible to me.

² I have used the Venice edition of Bonaventura, *Opera Omnia*, 1756. The Meditationes Vitae Christi are in the 12th tome, pp. 380 ff.

Annunciation), and Emile Mâle,¹ who has paraphrased this scene and very interestingly traced its influence upon French miniatures and dramatic mysteries of the fifteenth century, accepts the statement. There is, however, no such scene in St. Bernard's famous Homily on the Annunciation, and so far as the fairly complete index in the Migne edition serves, the audacious conceit of transferring the initiative for human salvation from God to the Angels seems never to have been entertained by the great Cistercian. I suspect St. Bernard is cited in the loose mediaeval fashion simply as a notable authority on the cult of the Virgin. Possibly the author of the Meditations squared his eminently heterodox notion with Divine omniscience by the general statement that "the fulness of time had come."

However that be, in this description of a celestial court preparing the way for the Annunciation we surely have the literary source of Giotto's first fresco in the Arena Chapel. Even in the present half-effaced condition of the painting it seems safe to say that Mercy and Peace, Truth and Righteousness are absent. The four most prominent figures — two near the throne; two at the front of the angel choirs - are most obviously to be explained as the four archangels. Unlike the Northern miniaturists cited by Mâle, Giotto avoids the fantastic personification of his original text and treats the subject concretely and explicably as a celestial audience with God speaking the word which Gabriel is to carry to Mary at Nazareth. The only earlier pictorial version of such a theme, that contained in the Homilies of Jacobus, represented the three persons of the Trinity seated together on a throne, and for that, as for other evident reasons, cannot be regarded as Giotto's original. It appears that, as was his usual practice, Giotto read carefully the text he was illustrating and selected from it those features which seemed most significant and most pictorial.

¹ L'Art Religieux de la fin du Moyen Âge en France. Paris, 1908, pp. 21 ff. M. Mâle gives a complete illustration of Bonaventura's scene from a late fifteenth century Ms. of the Golden Legend, Ms. français No. 244, Bibliothèque Nationale. He cites as an earlier incipient version, a miniature of Gabriel kneeling before God in the Breviary of the Duke of Bedford, 1450. Ms. lat. 17, 294, Bibl. Nat. His other examples are later. In fact, the "Meditations" seem to have arrived late in the North. Henry Thode in Franz von Assisi has cursorily analyzed the Meditations, omitting, however, this scene and its significance.

Giotto's seems to be the only instance of this theme being used in Italy, and this is another reason for supposing that he took it directly from that highly fanciful and by no means orthodox tract, the Meditations. The swelling current of Mariolatry willingly let the conceit of a celestial audit sink into a perhaps deserved oblivion. The blessed Virgin herself so fully engrossed men's interest and devotion that no one felt any curiosity as to what may have preceded the fateful words Ave Maria, gratia plena, even though such antecedents lay in the eternal purposes of God himself.

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A VASE FRAGMENT FROM VARI¹

The bit of an ancient vase which is reproduced herewith (Fig. 1)² was picked up at Vari in March, 1911. Just below the mouth of the cave is a small pile of earth, which was doubtless thrown out at the time of the excavation of the cave by members of the American School in 1901.³ And at the foot



FIGURE 1. - VASE FRAGMENT FROM VARI.

of this pile, lying face upward and perfectly clean, on a little grassy spot, this fragment was found. It had recently been broken in two, and still bears near the top what are perhaps the marks of the hob-nailed shoe that trod upon it.

¹ This paper was read at the meeting of the Institute in Washington, Dec. 30, 1912.

 $^{^2\} I$ am indebted for the excellent photograph to the kindness and skill of Mr. Albert W. Barker of Haverford College.

³ Cf. A.J.A. VII, 1903, pp. 263 ff.

The two pieces joined measure about $3\frac{1}{4}$ inches (8.4 cm.) between the extreme points, and this line is very nearly parallel with the wheel marks on the back of the fragment. The greatest height at right angles to this line is about two inches. The completed picture, however, to judge from the space required to complete the figures that partially appear at present—i.e. enough for a head and shoulders at the top and probably enough for a full-length figure at the left, possibly also for Pan at full length below the centre—must have been at least eight inches from top to bottom.

The curvature of the fragment also shows that it is from a vase of some size. Two of my colleagues from the departments of physics and mathematics, Professors Frederic Palmer, Jr., and Albert H. Wilson, kindly gave me their help in calculating the diameter of the vase. Three methods were tried: by the use of a pair of compasses and measurement of different chords, results of from 9 to 13½ inches were obtained for the external diameter; by the use of a spherometer, 12.38 inches. The simpler, but in such a case, perhaps, not ineffective, method of applying the fragment experimentally to circles of various diameters, showed that its curvature coincided pretty closely with a circle of fourteen inches. The variation in results by the first two methods is, needless to say, sufficiently accounted for by the irregular thickness of the fragment, viz., from 5.46 mm. to 5.91 mm. Since the other pieces of red-figured vases, large enough for an eight-inch picture, which were found at the time of the excavation, seem, as reported, to be probably all of the oxybaphon, or bell-shaped, type of crater, it is not unreasonable to infer that this is also probably a part of a vase of the same sort.

As for the subject matter of the painting, we have first in the centre, the upper part of what seems pretty clearly to be a head of Pan, with horns and animal's ears, and a fillet or band.² On the very edge of the fragment, just in front of the lip, is a tiny angle of white. The upper lip also protrudes slightly, so that it would seem that we have here the tip of a

¹ See A.J.A. 1903, pp. 320 ff.

² It resembles rather closely a Pan on a Cyrenaic *hydria* (British Museum, E 228).

syrinx or a pipe. The position of Pan's head, tilted slightly backward, would also agree with this supposition. The horns show very delicate, curved, interior markings. On and above the left horn and elsewhere on the background various lines can be made out which seem to be part of the artist's preliminary sketch on the clay. Behind Pan's head is the corner of a rectangular white object, which might be either a cista (doubtless in that case in some one's hands), or a stele, or an altar.

In front of Pan's forehead is a woman's left hand and forearm, and part of the sleeve and embroidered front of her chiton. On this hand, held palm up and not quite as high as her shoulder, rests the lower part of a white open-work basket, through which the edge of the bearer's shoulder can be seen. This object is apparently a new example to be added to the group of seven collected by Miss Richter in A.J.A. XI, 1907, 423 ff., which, if we accept her interpretation of them, are baskets of metal in which high-born Athenian maidens carried offerings of the first fruits in Dionysiac processions. The position in which this is held in our fragment would seem to indicate that the holder is standing rather than sitting. The missing right hand may well have been resting upon the top to steady it, as in a lecane from Kertsch cited by Miss Richter.2 The presence of Pan in our scene is certainly not at variance with the idea of a Dionysiac connection for these baskets.

Finally at the top we have a series of lines (like the other interior details, in light brown glaze), which finally resolve themselves into the folds and embroidery of the upper part of a woman's chiton. There is the same general style of decoration as on the front and sleeve of the other woman's garment. At the top is a trace, apparently, of the neckband. From this several curving lines radiate, the light folds over the bosom. To the right is part of the broad decorative strip which ran down the middle of the front, consisting of a zigzag series of parallels flanked by spirals or pothooks and pairs of short straight lines. On the left is a similar group of spirals bordered on the right by a curved line, — the joining, apparently,

¹ This reference I owe to Professor D. M. Robinson of Johns Hopkins University.

² loc. cit.; Arch. Anz. 1907, pp. 134 ff.

of sleeve and dress. I have no doubt, then, that we have here one of the half- or third-length figures common enough in the backgrounds of later vases, and even rising, as here, directly out of the background.

I have thus far spoken of headband, basket, and the uncertain object on the right, as white. This is certainly their appearance at present, but a tiny fleck of color on the bottom of the basket suggested the use of a magnifying-glass, which, in turn, revealed the fact that originally all the white of the painting was overlaid with a golden yellow glaze. Plain traces of it are preserved in many places, and although elsewhere the white surface is worn and rough, these yellow specks show a finished surface. Whether by any possibility the yellow could be the remains of gilding, I do not know. In any case, the golden color brings the offering basket into closer agreement with the other seven previously referred to, which are gilded in every case when the vase dates from a period in which gilt was used.1 And the color would apparently indicate, not only that it is a gilded metal basket that is represented, but also that it is a golden headband, and perhaps a metal-covered box on the right rather than stele or altar.

As to the date of this fragment, I am led by the carelessness with which the black varnish is applied (e.g. between the horns), and in general by the combination of technical skill and facility with hastiness of execution, by the polychrome coloring, by the beauty, almost effeminate, of the face of Pan, by the delicate inner markings, especially on the horns, by the representation of rich embroidery, by the half-length figure in the background,² as well as by the shape of vase,—if we may assume that this was an oxybaphon, a form of short vogue,³—to believe that it was painted not far from 400 B.C.

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¹ A.J.A. XI, 1907, p. 426.

² Walters, Hist. of Anc. Pottery, I, 466; Catalogue of Greek and Etruscan Vases in the British Museum, IV, 8.

⁸ Walters, Hist. I, 468; Smith, Catalogue of Greek and Etruscan Vases in the British Museum, III, 15.

Archaeological Hustitute of America

THE PRINCETON MADONNA AND SOME RELATED PAINTINGS

In the American Journal of Archaeology (first series), Vol. IX, No. 1 (1894), Professor Arthur L. Frothingham, during a discussion of 'Byzantine Artists in Italy,' refers to the Madonna and Child of the Uffizi, which bears the signature of one Andrea Rico of Candia, with whom Mr. Frothingham identifies Andrea Tafi, mosaicist of the Florentine baptistery. Of this painting, he justly observes that it is "perhaps the most beautifully executed of the early portable Byzantine paintings in Italy." Such being the case, Princeton University, in the recent acquisition of an almost exact duplicate of the Florentine work, may well lay claim to possessing the finest Byzantine painting in America.

The picture was purchased for Princeton by Professor Allan Marquand at the Eugene Benson sale in New York City, in February, 1911. Previous to its entry into the Benson collection it had hung for centuries in the private chapel of the Beltramini family at Venice. A thorough cleaning has revealed almost unexpected beauties. Like the Uffizi panel, that of Princeton represents the Madonna holding the Divine Infant, while above, to right and left, hover small angels bearing the instruments of the passion. The Child clings to His Mother's hand, as He looks over His shoulder to perceive the angel bearing toward Him the cross. From His right foot dangles a sandal held by a single loose string (Figs. 1 and 2).

Identity of subject in the two pictures finds its counterpart in identity of treatment. In each the Madonna's robes are treated with unusual breadth of fold, and are free from gold hatchings. In each, the Child is clad in a white undergarment decorated with trifoliate sprigs and with berries, arranged somewhat better in the Princeton than in the Uffizi example.

The Child's sash and mantle are heavily marked with gold lines. The Gothic lettering of the inscription of the Princeton picture is considerably more defaced than that of the Uffizi



FIGURE 1. - MADONNA IN THE UFFIZI GALLERY.

panel, yet sufficient remains legible to give assurance that the two pictures bear precisely the same wording.¹

There is, too, in the Princeton panel a clearly distinguish-

 1 Mr. Frothingham, op. cit. p. 47, has transliterated it thus: Qui primo candidissime gaudium prehindicat | nu(n)c passionis signacula car|nem vero Chr(istu)s mortalem i(n)duit. Timens que letum talia pavet cernendo.

able inscription, IHSXPS, above the head of the Infant. An M and a G, further, serve to distinguish the heavenly visitants as the archangels Michael and Gabriel. In short, the only



FIGURE 2, - THE PRINCETON MADONNA.

differences between the signed Uffizi icon and the unsigned one at Princeton are to be found in a very slight variation in the proportion of the panels, and in the fact that, while the personages of the Uffizi example are furnished with very simple halos, those of Princeton are provided with halos richly and elaborately engraved. Granting the genuineness of the Uffizi signature, there is, then, every reason to believe that Princeton is the fortunate owner of a work not merely from the shop, but from the hand of Andrea Rico of Candia.

Important by virtue of its intrinsic quality, the picture possesses further value as an additional link in a chain of evidence pointing to the great popularity and influence of the Cretan school of Rico in both Italy and the Eastern Empire. In his essay, Mr. Frothingham observes that, in the church of S. Alfonso de Liguori in Rome, is a Byzantine painting, known to have come from Crete, which represents exactly the some composition as the Uffizi panel, even to the hanging sandal.

The Christ Child frightened at the prophetic vision of future suffering constitutes a new iconographic idea; the little falling shoe adds a humanizing touch of genre. Both are what we might expect of the revitalized Byzantine painting of the late thirteenth or early fourteenth century; and, entirely apart from considerations of technical mastery, would be sufficient to account for the popularity of their inventor and for the multiplication of the type, either at first hand or through successive copies. Indeed, Éméric David 1 cites a small panel in the collection of one M. Artaud, similar in composition to that of Florence and probably one of the samples sent by Rico to Italy for the obtaining of what must have been numerous orders. Mr. Frothingham has, in his Princeton home, such a small panel, evidently by Rico. Although in this picture the Child is represented in the act of benediction, instead of intent upon the impending symbols of the passion, the dropped sandal occurs.

While in Italy we appear to encounter Rico in original master works,² our knowledge of his apparently wide influence in the east must, for the present, be founded on more or less debased copies. Diehl mentions an important Madonna of the

¹ Histoire de la Peinture au Moyen Age, Paris, 1845, p. 123, note.

² See, however, the *Catalogue* of the Naples Museum, ed. 1893, p. 247, Nos. 44 and 46, and Ricci's *Galleria de Parma*, ed. 1896, pp. 342 and 350, Nos. 441 and 447. The Turin gallery possesses a Death of the Virgin attributed to Ricc.

Passion in the church of Saint Clement at Ochrida in Macedonia which would seem very like the Uffizi and Princeton panels. But it is among the plates of Likatcheff's great work,



FIGURE 3. — MADONNA; LIKATCHEFF COLLECTION.

Matériaux pour l'Histoire de l'Iconographie Russe, St. Petersburg, 1906, that we find, not only definite analogies to Rico's

¹ Diehl, Manuel d'Art Byzantin, Paris, 1910, p. 748.

Italian pictures, but data, as well, for reconstructing other of his works.

Here we find three examples, all from M. Likatcheff's private



FIGURE 4. — MADONNA; LIKATCHEFF COLLECTION.

collection, of the Madonna of the Passion, of which the Uffizi and Princeton panels represent the high type. Of these the closest analogue, a somewhat coarsened but still exact copy (Fig. 3), presents the composition in all its parts, even to the inscriptions, which, in this instance, are in Greek instead of in Latin.¹ A variation occurs in the omission of the letters above the head of the Infant and the introduction over the Madonna's right shoulder of the word H AMÓAVNTOC balancing the main inscription.

In two other successively coarser and probably late examples,² (Figs. 4 and 5), the long inscription is omitted, the dainty pattern of the Child's tunic reverts to gold hatching, and the workmanship of the seemingly elaborate halos is inferior. Both pictures are interesting mainly as evidence of the surviving popularity of the theme.

Again, in the same collection are to be encountered two examples of another type at first sight distinct in its ensemble. Here the Mother supports the Child with her right hand, balancing Him with the left. Her cheek is pressed against that of the Babe, who rather awkwardly dangles an inscribed scroll. Right and left above are half figures of adoring angels. The first element here to challenge attention is the recurrence of the motive of the hanging sandal. Closer examination reveals the interesting fact that in its details this composition exhibits but slight variations from that of the Madonna of the Passion. Although the weight of the Babe is shifted from one of the Mother's hands to the other, the position of those hands is but little affected. Her head is but little more inclined, and the changed position of the Child is achieved mainly by alterations in the pose of head and torso.

If we place the better of the two examples of this composition (Fig. 6) side by side with the Uffizzi Rico, we are impressed by the strong similarity not only of the forms, but of the accomplished technique of the two. Somewhat less fine,

¹ Likatcheff, op. cit. pl. XXXIV, No. 65.

² As above, pl. XXXII, No. 63, and pl. XXXIII, No. 64.

³ As above, pl. XXXVII, No 68, and pl. XXXV, No. 66.

⁴The inscription is taken from the Gospel of Luke, iv, 18: "The spirit of the Lord is upon me because he annointed me." Cf. Isaiah lxi, 1.

⁵ The famous icon of Karyais at Mount Athos seems to be derived from the same original. See Brockhaus, *Die Kunst in den Athos Klöstern* Leipzig, 1891, p. 923. A somewhat similar composition is described, p. 93, and attributed to the fifteenth century.

perhaps because less cleaned, than the Uffizi icon, that of the Likatcheff collection is so close to it as to put almost beyond the field of doubt its origin from the same atelier. To be sure,



FIGURE 5. - MADONNA; LIKATCHEFF COLLECTION.

the embroidered garment of the Child here gives way to an elaborate system of gold hatchings, but the management of this system, in its delicate certainty, bears intimate resemblance to that which occurs in the Uffizi and Princeton pictures; while it is worthy of note that the unusually rich and well executed en-



FIGURE 6. - MADONNA; LIKATCHEFF COLLECTION.

graving of the halos is almost identical with that of the Princeton example.

Intermediate, or perhaps transitional, between the two types

already discussed is a third in the Likatcheff collection 1 (Figs. 7 and 8). Here the Mother supports the Infant as in the first composition. He, however, places His left hand only in that



FIGURE 7. — MADONNA; LIKATCHEFF COLLECTION.

of the Madonna: for with the right He clasps a closed scroll. His cheek lies against that of His Mother, as in the first compo
1 As above, pl. XL, No. 72, and pl. XLI, No. 73.

sition. Again the hanging sandal appears. Whether this third type harks back to an original design by Rico, or is of composite



FIGURE 8. - MADONNA; LIKATCHEFF COLLECTION.

derivation, would be difficult to say. The better of the two pictures suggests possibility of a specific original; the absurd



FIGURE 9. - MADONNA; LIKATCHEFF COLLECTION.

position of the Madonna's left hand, in the second, seems to imply thoughtless adaptation from separate sources.

A fourth, and certainly still later derivative, in which the

¹ As above, pl. XXXVIII, No. 70.

dropped sandal again appears, is a mixture of the first and second types. The scroll is here omitted, and the Child, in evident terror, clasps His Mother's neck with His right hand, while, with His left, He points to one of two angels who come bearing the instruments of the passion (Fig. 9).

The provenance of the pictures in the Likatcheff collection is not stated in the index of plates. It is a fair assumption that most of them are from Russia, whose active school of painting from the tenth century on was dominated by Greek masters and masterpieces. The importance, further, of the Cretan school among the followers of the Greek manner is attested in the Mount Athos Handbook, while in addition to that of Rico of Candia the names of no less than three other, though later, Cretan painters are known to us: Nicholas, Victor,3 and Theophanes.4 Among these, however, that of Rico is the most potent; for in him we perceive something of a personality; master of a Cretan atelier whose products followed the paths of commerce east and west; observer of tradition, yet responsive to the urgent Zeitgeist of his century; inventor of a new iconography of the Madonna; half timid perpetrator of genre. In the still conservative lands orientward from the Adriatic, recognition of him expresses itself in the long-continued repetition of his works. In awakened Italy, it prompts the invitation that brings Rico first to Venice and thence, perhaps, to Florence, honored in the commission to aid in restoring the half-forgotten mosaic art.

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¹ Muñoz, L'Art Byzantin à l'Exposition de Grotta Ferrata, Rome, 1906.

² Didron et Durand, Manuel d'Iconographie Chrétienne Grecque et Latine, Paris, 1845, p. 51. For a discussion of the date of this Handbook, see Brockhaus, op. cit. pp. 158 ff.

³ Likatcheff Index numbers 50 and 124.

⁴ Dalton, *Byzantine Art and Archaeology*, Oxford, 1911, p. 303. Further data concerning Cretan painters are apparently entombed in Russian, in Kondakoff's *Iconography of the Virgin*, St. Petersburg, 1911, reviewed in the *Byzantinische Zeitschrift*, May, 1912, pp. 350 ff.

Archaeological Institute of America

ARCHITECTURAL BACKGROUNDS IN THE SERIES OF "SCENES FROM THE LIFE OF SAN BERNARDINO" AT PERUGIA

In all the history of Umbrian art there is no problem harder to solve than that presented in the series of Scenes from the Life of San Bernardino in the gallery at Perugia. One critic has attributed these paintings to the School of Verona, another to that of Siena, and others to that of Umbria. Orsini, writing in the eighteenth century, attributed them to Pisanello, who he said painted them in 1487.1 Subsequent critics pointed out that Pisanello died in 1451,2 yet there is undeniably a courtly, one might almost say materialistic, feeling in the paintings more akin to Pisanello's style than to the works of the Umbrian school. Venturi gives the initiative of the composition to two co-workers of the Sienese school: Francesco di Giorgio Martini and Neroccio di Landi. The execution, however, he considers to have been done largely by the great Umbrian, Perugino. In Venturi's criticism the importance of Perugino looms larger as the critic reconsiders the problem.8

¹ The only date on any painting is 1473, incorporated in the architecture in the *Miracle of a Woman rescued from a Well*.

² Jean Carlyle Graham, *The Problem of Fiorenzo di Lorenzo*, p. 63; Siegfried Weber, *Fiorenzo di Lorenzo*, p. 65.

⁸ Compare L' Arte, 1909, p. 196; Storia dell' Arte, VII, pp. 510-513, and L' Arte, 1911, Fasc. 1°. Venturi's criticism is weakened, however, by a very curious mistake, for which we must blame the proofreader. In the two articles in L' Arte and in Vol. VII, of the Storia, the critic mentions two of the panels as by Francesco and Neroccio. Those two he calls The Birth of San Bernardino and the Miracle of the Sterile Woman. As a matter of fact the two titles refer to one and the same painting (Fig. 2) called in the Museum catalogue Il Miracolo di una Sterile. This is the only painting in the series the subject of which has to do with a birth. In this curious expansion of one composition into two, one of the remaining seven had to be overlooked. All are accounted for except the Miracle of a Boy Wounded by a Bull (Fig. 3). The most recent article in L' Arte mentions the paintings reproduced in Figures 4-7 as by

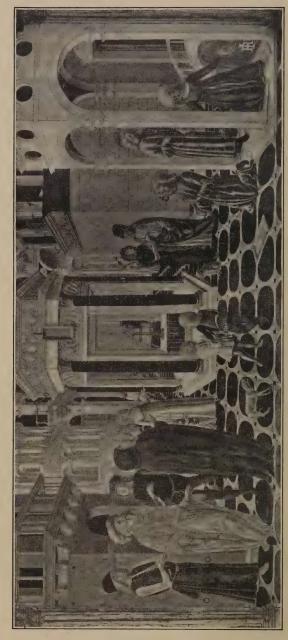


FIGURE 1.—Scene from the Life of San Benedetto; Uffizi Gallery, Florence.

The attribution of the paintings to Fiorenzo di Lorenzo¹ dates back to Crowe and Cavalcaselle. This criticism, somewhat timidly made, was seized by later critics and now is the most generally accepted of the attributions, though nearly always with reservations. Both Weber and Berenson give the credit of the series to Fiorenzo, but do not agree as to the composition actually painted by him. No. 8 in the catalogue,2 called there the miracle di una attratta (Fig. 9); by Berenson, Another Miracle; and by Weber, The Miracle of a Woman Rescued from a Well,3 is given by both critics to Fiorenzo. To him again both give the Miracle of the Blind Man (Fig. 5).4 Over the Miracle of the Accident by Falling 5 the critics divide, Berenson giving it to Fiorenzo, while Weber sees in it the strong influence of Fiorenzo on his pupil Pintoricchio. Venturi gives the panel to Perugino as he does the Miracle of the Blind Man and the miracle di una attratta. The three critics assert the same three attributions in regard to the Miracle of the Prisoner (Fig. 6).6

Perugino, and those in Figures 8-9 as by an Umbrian follower of Niccolò da Foligno. The article implies, therefore, that Figures 2-3 represent the two works by Francesco and Neroccio. One of these is the Miracle of a Boy Wounded by a Bull. This, then, is almost surely the picture which Venturi had in mind when he mentioned a second composition by Francesco and Neroccio. I wrote Professor Venturi calling his attention to the error in the transcription of the titles of the two paintings, and received a most courteous reply from him that the confusion would be cleared away in the second part of Volume VII of the Storia.

Since this article was in type the second part has appeared. I am pleased to see that Professor Venturi has confirmed my opinion, in so far as he has abandoned the attribution of two of the panels to Francesco and Neroccio. He has redistributed his attributions with regard to the various panels (see Part II, Vol. VII, of the *Storia*, pp. 470–482), but his discussion does not seem to me to affect the arguments already advanced in this article. It is interesting to note, however, that Pintoricchio now figures in the list.

- ¹The attribution is thus given in the catalogue of the Pinacoteca Vannucci at Perugia.
 - ² Alinari photo. No. 5660.
- ³ Note the ease with which confusion might arise from the uncertainty of the subjects of the composition.
 - ⁴ Alinari photo. No. 5661.
- ⁵ In the catalogue *Il Miracolo di un Malconcio per Caduta*. Alinari photo. No. 5659.
 - ⁶ Alinari photo. No. 5663.

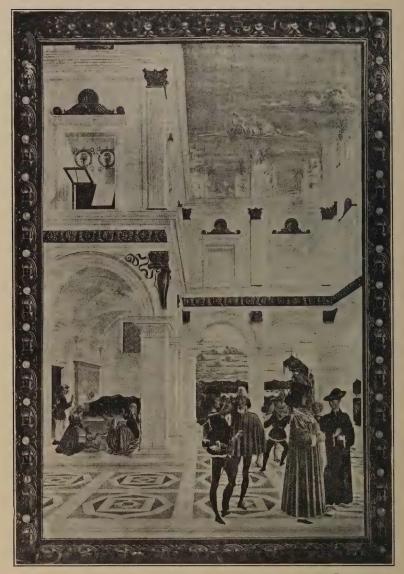


FIGURE 2. — Scene from the Life of San Bernardino in Perugia.

There now remain three panels of the attributions concerning which I have made no mention.¹ They are the Miracle of the Man Wounded by Arms (Fig. 4),² that of the Man Wounded by a Mattock (Fig. 8),³ and that of the Boy Wounded by a Bull.⁴ None of these is in Berenson's list. All three, according to Weber, are inspired by Fiorenzo, but in execution unworthy of him. The first two Venturi says are by an Umbrian follower of Niccolò da Foligno.⁵ The last, as I have said, he probably considers by Francesco and Neroccio.

I have mentioned the biography of Mrs. Jean Carlyle Graham, but I have not cited her attributions in regard to these panels, and for good reason. She offers none. After a very careful analysis of the series she comes frankly to the conclusion that she does not know by whom the panels were painted, but that she does not consider them to be by Fiorenzo. This attitude is the more honest in that the author admires the series and admits that their attribution to the painter whose biography she writes would shed much lustre on him. Bearing in mind not only the strong impulse of a biographer to laud his subject, but also the almost invariable desire of scholars to advance a "theory" when they are writing about anything, we must give Mrs. Graham's dispassionate criticism careful consideration.

So much for a very long and involved introduction to the problem; long of necessity and involved from the nature of the problem itself. Our task is now to examine the architectural backgrounds and see what light they shed on the situation. The architectural background is always a factor in the criticism of a painting which has such a background at all, but its importance varies. In five of the compositions in our series one might call the architecture of preponderant importance. Two more have architecture worth careful examination, the eighth has practically no architecture at all. Given this proportion, one must readily admit the importance of the architecture in the series.

Another fact which we must grant is that, while there are variations in the panels, the series as a whole is enough of a

¹ The Miracle of the Sterile Woman is not in Berenson's list.

² Alinari photo. No. 5665.

⁸ Alinari photo. No. 5664.

⁴ Alinari photo. No. 5662.

⁵ See L' Arte, 1911, Fasc. 1°.



FIGURE 3. - Scene from the Life of San Bernardino.

unit to warrant the assumption that one individual may be held generally responsible for it. Glancing over the series, it is inconceivable that A did one or two panels, then B came along and, seeing them, did one or two more, being followed in equally hap-hazard fashion by C, and so on. Granted then that some one master is responsible for the series, we must recognize in him a man with a strong sense of architectural design. The painter who elaborates his architecture without understanding architectural construction invariably betrays himself. I can give no better example of what I mean than the two panels in the Galleria Barberini in Rome, there attributed to Fra Carnevale. In these panels we have a delight in architectural elaboration only equalled by the painter's abysmal ignorance of construction. The painter of the San Bernardino series had as great a delight in elaborate architecture, but he manifestly knew what he was about when he designed it.2 Venturi realized this when he gave the designing of the architecture in the series to Francesco di Giorgio.

There are, however, grave difficulties in the way of accepting Venturi's dictum. In the first place it is confusingly put. After speaking of the first two quadretti the critic goes on to say "Nei due quadretti e negli altri Francesco di Giorgio Martini segnò le architetture." The meaning of "segnò" is doubtful. We do not know whether it means that the Sienese master designed the architecture or that he actually painted it. One would think, of course, the former, but in the Storia Venturi writes of Francesco "il quale . . . pose nel fondo modelli architettonici, finemente disegnate e coloriti." If Francesco designed and painted the architecture in the series, there is little credit due Perugino. The figures, though some of them are finely painted, are so tiny as to be comparatively

One the *Presentation*, the other the *Visitation*, but in both the subject is merely an excuse for the background.

² Weber proves at least an acquaintance with architectural design for Fiorenzo when he proves that the painter had been employed on the construction of the Scuole in the Piazza del Sopramuro at Perugia. See Weber, op. cit. pp. 89–91. See also a pamphlet, La Piazza del Sopramuro, by Professor Adamo Rossi, Perugia, 1887, written on the occasion of the erection of a statue to Garibaldi in the Piazza.

⁸ L' Arte, 1911, Fasc. 10.

⁴ Storia del Arte, VII, p. 512.



FIGURE 4. — Scene from the Life of San Bernardino.

unimportant. Space, light, air, all the more important praises by the critics of the series would belong to the composer, not to the painter of the figures. Only in two panels, the *Miracle of the Prisoner* and that of the *Accident by Falling*, would Perugino get any real credit.

We must also ask ourselves if Perugino would have consented to paint the figures in an architectural framework as elaborate as the one provided by Francesco. In 1473, the only date incorporated in any of the panels, Perugino was twenty-seven years old. One might imagine that any other painter's style but Perugino's might have changed between 1473 and 1478, but bearing in mind that, of all painters, Perugino was most notorious, even in Renaissance times, for never changing his style, one doubts very much if any material change could have come about in five years.

The Perugino architectural background is one of the most familiar in all art, and it is always marked by the sternest possible simplicity. Every superfluous ornament in the architecture, which is generally of wood, is suppressed. Only in the *Delivery of the Keys*, did Perugino approach anything like an elaborate architectural background, and there the buildings are reduced to the middle distance, and the pavement is the only really striking architectural feature, if, indeed, we may call it such. At twenty-seven Perugino had a mind of his

¹ In the miracle di una attratta is an arch bearing the inscription

"S. P. Q. R. DIVO TITO DIVI VESPASIA
NI FILIO VESPASIANO AUGUSTO
A.D. MCCCCLXXIII. FINIS."

Weber points out that the arch, many of the motives of which have been copied from the arch of Titus in Rome, and the inscription may mean that the artist had visited Rome, or, possibly, that he had copied an inscription on a triumphal arch in honor of Tito Vespasiano Strozzi when he visited Perugia as Ambassador from Ferrara. Of the two, Weber favors the latter theory. In this case one is tempted to wonder if the date might not have been copied direct from the triumphal arch and refer to its completion rather than the completion of the painting. Fortunately, the strong probability is, that the date refers to the painting. I say fortunately, else our only clue to the date of the whole series would be obliterated.

² The date of Perugino's earliest datable painting, the *St. Sebastian* at Cerqueto.



FIGURE 5. - Scene from the Life of San Bernardino.

own, and it is very doubtful if, with his life-long tendency to architectural simplicity, he would have consented to paint the little figures in Francesco's intricate design.

And, if it is doubtful whether Perugino could have painted the figures, it is absolutely inconceivable that he could have painted the architecture from Francesco's design. In design the architecture is real and constructive. In color it is far too glaring and brilliant to be possible. The photographs of some of the panels have the appearance of having been taken from actual buildings. Such an illusion before the actual works would be impossible on account of the gaudiness of the colors. Had Francesco merely designed the architecture and Perugino colored it, the latter sober painter would have been responsible for all the gaudiness of the colors, and the consequent unreality of the paintings; in short, he would have been exhibiting characteristics diametrically opposed to those proved by every one of his important works. Decidedly, it seems to me, we must exclude Perugino from serious connection with the series.

Disposing of Perugino, then, let us examine Venturi's statement that Francesco di Giorgio designed the architecture in the whole series. The critic's opinion seems to have its inception in his identification of the hand of the master of the Birth of San Bernardino with that of the author of a scene from the Life of San Benedetto in the Uffizi (Fig. 1).1 The latter is given by Jacobsen to Francesco and Neroccio, the former designing the architecture, and this theory Venturi accepts. He therefore gives the Birth of San Bernardino (and the Miracle of the Boy wounded by a Bull?) to Francesco and Neroccio. In the rest of the series the figures were obviously not by Neroccio, but Venturi retained Francesco to account for the architecture. There is nothing a priori incredible in Francesco and Neroccio working together to produce the paintings, but it is extremely unlikely that the former designed architecture to be filled in, not only by his compatriot, but also by the Umbrians: Perugino and the unknown followers of Niccolò Liberatore. Moreover, if he designed the architecture for the whole series, would be have been likely to give it paramount

¹ Storia dell' Arte, VII, p. 512.

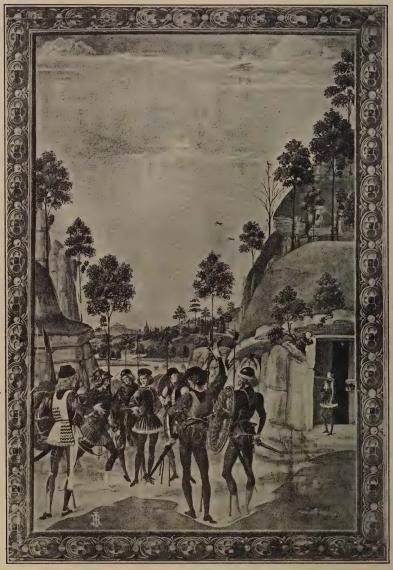


Figure 6. — Scene from the Life of San Bernardino.

importance in five panels, less in two, and in one reduce it to the indication of a few towers in the far distance?

Certain proof that Francesco did not design the architecture for all the painting is offered by the Miracle of the Man wounded with a Mattock (Fig. 8), a composition so bad that I think we must exclude any but the slightest participation in it by the man whom we hold responsible for the whole series. Especially the architecture is a crude and wholly unsuccessful attempt to imitate that of the other compositions. It is weak, thin, and a mere attempt to conceal, by exaggeration of the bizarre, the painter's poverty of invention. Look for a moment at the pavement. In every other painting the pavement is monumentally plain or ornamented with a fine mosaic, broadly treated, in colors variegated, but temperate. The pavement in the Mattock miracle is embellished by a chequer of plain lines, exactly like the lines of a pavement in miniature, grossly exaggerated and clumsily executed. The same effect, only worse, one sees in the lines like a spider's web which encircle the bull's-eyes in the chapel wall. While the line of this wall is straight on plan, the bull's-eyes appear to look out at radiating angles from the centre of the chapel. The transition from the roof to the chapel dome shows the most abject poverty of design, and the dome itself, egg-shaped and lined with numerous weak ribs, is distinctly falling over backwards. whole creation would be impossible except in plaster, and the faults which I have mentioned are all in the original design. Since the painting is as bad as the design, it seems reasonable to consider both by the same hand, and that hand was not that of Francesco di Giorgio. The Sienese master was a great architect, and no architect, great or small, would have had anything to do with the painting under discussion.

Here then is one of the paintings in which Francesco did not design the architecture. He could also have had no hand in the *Miracle of the Prisoner*, for in that there is no architecture. Nor is he apt to have had anything to do with the *Miracle of the Accident by Falling*, since in that the architecture occupies so subordinate a place. We can thus dispose of Venturi's statement without going into a comparison of Francesco's known painted architecture with that of the San Ber-



FIGURE 7. - Scene from the Life of San Bernardino.

nardino series. Such a comparison would take an article in itself but would, I think, prove conclusively that Francesco did not have a hand in the series. There is a constant tendency in the Sienese school to paint unreal architecture. So strong was this tendency that even Francesco, an architect, when he designed architecture for a painting made it unreal. Francesco's painted architecture, while it is never poverty-stricken or impossible, is always fanciful, fairy-like, and impregnated with a sentiment of unreality. True the architecture of the San Bernardino series is unreal, but its unreality is due to color, not to design. As I have already said, the photographic reproductions of the architecture in the San Bernardino series might be mistaken for reproductions of actual buildings. This is not true of the architecture painted in any generally accepted work of Francesco di Giorgio.

We must now leave Venturi and take up the theory of Dr. Weber, which is roughly a refining analysis and carrying forward of the theory indicated in Berenson's Central Italian Painters. The German critic gives the credit of the series to Fiorenzo, though he does not claim that all of the paintings are by his hand. This theory, however, logical and attractive as it may seem, I think we must abandon. The great objection to it is the dissimilarity between the series and all the rest of Fiorenzo's known works. It was this objection which caused Mrs. Graham to reject Fiorenzo's authorship of the series. The work in the series is so much finer than that of the signed niche of 1482 that it seems impossible that the same man should have done both. Mr. Berenson explains the phenomenon by Fiorenzo's "splendid dawn" and subsequent decline in his provincial isolation, but this theory is too badly needed to be convincing. It is best answered by comparing the architectural treatment in the series with that of the scant detail in the St. Sebastian in room XII of the Perugia gallery, which Berenson also marks as "early." In the latter a nightmare of crudity is exhibited in the architectural detail. The eye is riveted, as it were hypnotically, by the hideous attempt to represent veined marble in the pedestal. The capital is florid, its base flabby, the column bulging, and as one stands before the picture the thought that the painter of this daub had anything to do



FIGURE 8. - Scene from the Life of San Bernardino.

with the San Bernardino series seems an unmitigated sacrilege. Yet this is a painting which should belong to the "dawn" of which Mr. Berenson speaks.

Of course it would be unfair to draw sweeping conclusions from a single early work. These conclusions, however, are fortified by a comparison with every other accepted work of Fiorenzo, with possibly one exception. Probably the greatest merit of the architecture in the series, as well as the composition in general, is its use as a means of space composition. Now except for the Annunciation in Fenway Court, Boston, there is no other composition given to Fiorenzo which contains adequate space composition. Indeed, in a school conspicuous for space composition, one may say that a salient characteristic of Fiorenzo is his lack of feeling for space. In his many compositions in Perugia and throughout Europe he persistently and consistently blocks his background with a wall or curtain. Is this, then, the man who composed the San Bernardino series and transmitted to Pintoricchio and Perugino their wonderful feeling for space? Dr. Weber, judging from a photograph, rejects the authorship of Fiorenzo in the Fenway Court Annunciation. He thinks it not quite fine enough. He seems to have arrived at the right conclusion from an absolutely false premise. One can hardly believe the Fenway Court Annunciation to be by Fiorenzo. It is far too fine.

Our examination of the architecture in the series seems to have led us into a great desert. It is easier to take away than to give, and the average reader will want to know who is responsible for the series rather than who is not. On the other hand, we have found, or think we have found, that hasty judgment has led former critics of the series into error. There is one argument left us which seems to be creative. Venturi's logic, in its essence, is faultless. The composer of the series was evidently a great master. Fiorenzo was not a master of sufficient power for the creation of the series, therefore we must find another Umbrian, but one of a sufficiently creative genius to be responsible for the work. So far so good, but, as we have seen, when Venturi selected Perugino as the master he chose one whose characteristics, as revealed in every authentic work, would prove such a selection incapable of serious acceptation.



FIGURE 9. - SCENE FROM THE LIFE OF SAN BERNARDINO.

In the present state of our data only one name is left to us: Pintoricchio. Here was a genius, well acquainted with architectural design, delighting in brilliantly colored architecture, of acknowledged creative genius second in the school only to Perugino, and preëminent as a space composer. Moreover, Pintoricchio's architectural compositions are peculiarly close to those of the series. He loved to get his spatial feeling on a slanting line with a greater mass of buildings on one side than on the other. This is specially true of his earlier compositions, while Perugino, in his *Delivery of the Keys*, spoke for absolute symmetry. The series, great as it is, is not as great as one would expect to find in work of Perugino at that period. It is on a good level with Pintoricchio's best work. Its very faults, too brilliant coloring and superabundance of detail, are characteristics of Pintoricchio.

Here, then, is the safest name to attach to the series. We must make many reservations in the use of the name. Many problems remain unanswered. Obviously several artists worked on the series. The withdrawal of the credit from Fiorenzo will mean a complete reassessment of the importance of his position in the Umbrian school. Still our logic from the premises permitted by our data is inexorable. We must grant that our data are incomplete. They do not exclude the possibility of a wholly unknown and easily possible personality in the Umbrian school of that period. In the present state of our data, however, such a personality is wholly speculative. Though fresh light may lead to fresh conclusions, it is enough now to say, first, that we may give the credit of the San Bernardino series, as a unit, to some single individual and that individual a master; second, that it is inconceivable that Perugino or a combination of Perugino and Francesco could represent the master; third, that the genius of Fiorenzo di Lorenzo, so far as we know it, leaves the attribution of the series to him quite unwarranted; and last, that the only name left us by inexorable elimination is that of Bernardo Pintoricchio. Unless further data are discovered it seems that justice demands that he be given the responsibility and the credit of the creation of the San Bernardino series. G. H. EDGELL.

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ATTIC BUILDING ACCOUNTS

II. THE ERECHTHEUM 1

OF the records of the first period of the construction of the Erechtheum, including, as we may imagine, a decree of about 435 B.C. authorizing the erection of the building, and a stele with the expense accounts down to the outbreak of the Peloponnesian War in 432, not a fragment has been identified. Of the later series, however, beginning with (A) a fragment of the decree of Epigenes in one of the last prytanies of 410/9 (I.G. I, 60, and suppl. p. 18), which provides for a commission to examine the state of the unfinished building, we have a fairly complete array. To the stele containing the report of this commission, and dating from the first prytany of 409/8 B.C., I assign five fragments.

- B. The upper portion of a marble stele (I.G. I, 322), found on the Acropolis by Chandler in 1765, and because of its contents immediately identified as referring to the Erechtheum, was taken to England for the Society of Dilettanti and by them presented to the British Museum. Early writers all supposed that the stele was complete; it remained for Boeckh (C.I.G. 160) to note from the context that more lines were needed, and that therefore the lower end of the stone must be missing.
- C. A fragment of the left edge of a stele (I.G. I, 322 b), found on the Acropolis in 1838 and now in the Museum at Athens, was identified by Pittakis ('E ϕ . 'A $\rho\chi$. 1839, no. 215), Rangabé (Ant. hell. I, p. 86), and Stephani (Annali, 1843, p. 286), as forming part of the missing continuation of the first column of the stele.

¹I repeat my acknowledgments to Dr. Keramopoullos, of the Epigraphical Museum; and to Dr. Caskey, whose studies of the Erechtheum inscriptions have made me more intimately acquainted with the fragments and their contents, I am under many obligations.

D. A fragment of the right edge of a stele (I.G. I. 322, suppl. p. 152), bought by the Greek Archaeological Society and said to have been found in Athens (before 1889), was suggested by Kirchhoff as part of the second column of our Erechtheum stele, but this suggestion has not always been received with favor by recent writers. The contents, style of writing and size of letters, and the distance of the left side of the column (as restored) from the preserved right edge of the stone, are exactly the same as in the Chandler stone. The fact that B, C, and D all belong to one and the same stele seems to me beyond doubt. But there is one strong objection. Chandler stone (B) is 0.09 m. thick and roughly tooled on the back, without tapering; C is a mere sliver 0.05 m. thick, and so does not enter into the question; but D, even though broken at the back, is at least 0.135 m. thick, far thicker than the Chandler stone. Either therefore B and D do not belong together, or the back of B is modern.

Now what do we learn from Chandler's own account? In his Travels in Greece (1776, pp. 57-58 = 1821, pp. 71-72), we read as follows: "Another marble, which has been engraved at the expense of the Society of Dilettanti, was discovered at a house not far from the temple of Minerva Polias, placed, with the inscribed face exposed, in the stairs. The owner, who was branded for some unfair dealing with the appellative 'Jefút' or 'the Jew,' prefixed to his name, seeing me bestow so much labour in taking a copy, became fearful of parting with the original under its value. When the bargain was at length concluded, we obtained the connivance of the disdar, his brother. under an injunction of privacy, as otherwise the removal of the stone might endanger his head, it being the property of the grand signior. Mustapha delivered a ring, which he commonly wore, to be shewn to a black female slave, who was left in the house alone, as a token; and our Swiss, with assistants and two horses, one reputed to be the strongest in Athens, arrived at the hour appointed, and brought down the two marbles,2 for which he was sent, unobserved; the Turks being at their devo-

 $^{^1}$ The engraving is published by Chandler, $Inscr.\ gr.\ 1774,\ II,\ 1$; Wilkins, in Walpole, $Memoirs,\ p.\ 580$; Rose, $Inscr.\ gr.\ pl.\ XXII.$

² One was a fragment of a treasure list.

tions in the mosque, except the guard at the gate, who was in the secret. The large slab was afterwards rendered more portable by a mason." When we remember that another slab of the Erechtheum accounts (I.G. I, 321) has on its back an inscription (A.J.A. 1906, pl. III) which was not discovered until forty years after the inscription on the front had been published, we may well hesitate to imagine what may have been on the back of the Chandler stone, buried under the crust of lime mortar which probably covered it at the time of the extraction from the stair of the house of Jefút Mustapha. Yet it is to the problem of what was lost by the mason's endeavor to render the stone "more portable" that we must now turn.

E. A fragment of the right edge of a stele (I.G. I, 282), found on the Acropolis in 1839 and now in the Museum at Athens, was first recognized by Rangabé (Ant. hell. I, no. 88) and Jahn (Arx Athenarum², 1880, no. 16), as part of the specifications for work to be done on a wooden ceiling of the Erechtheum. The stone is broken away 0.025 m. below the last line, leaving, however, a vacant space which is enough to show that this was the bottom of a column of text. For various reasons, now unnecessary to relate, it appeared to me probable that this was to be associated with the three other pieces; the matter was finally settled by the discovery that the fracture at the back exactly fits the broken back of C. The two pieces thus placed together give the original thickness of the stele as 0.139 m., sufficient to include D and show that on the back of the report were inscribed the specifications for new work, most of which were chipped off by the mason and are now hopelessly lost.

F. A fragment of a lower corner of an opisthographic stele (unpublished), now in the Museum at Athens, was there recognized as forming part of the inscription to which E belonged, *i.e.* the specifications.² The other face has, however, a few letters from the last two lines of an inscription exactly like that on the Chandler stone—

N I A K O
$$/$$
 O \leq T P I \square O \triangle E (vacat)

¹ The italics are mine.

² It is now marked "Els I, 282," and will be published by Mr. L. D. Caskey.

and the thickness 0.139 m. is the same as that reached by fitting C and E together. The broken surface at the bottom of D, moreover, exactly fits the top of F, and enables us to terminate the Chandler inscription thus:

[II 'E $\lambda \in v \quad \sigma \iota$] N I A K O i / m / m K O \leq H E K \square O Δ E

Our five pieces of the stele now form three groups, B (itself broken into two pieces), C + E, and D + F, which cannot be

joined together. We may, however, form an idea of the general contents of the stele and of the gaps that separate the fragments (Fig. 1).

The report proper on the obverse, below the prescript which extended across the entire width (ll. 1–7), falls into two general divisions, an inventory of the building and an inventory of what lay on the ground about the building. The first division is subdivided into two sections, containing a list of the blocks missing from the building (col. I, ll. 8–43), and a list of those already placed but unfinished (ll. 44–92). The second division is

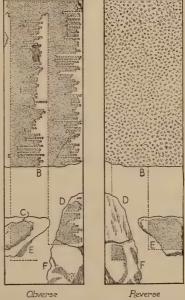


FIGURE 1. - THE CHANDLER STELE.

subdivided into three sections, containing lists of stones then on the ground $(\chi a \dot{\mu} a i)$; first are those completely worked $(\pi a \nu \tau \epsilon \lambda \delta s) \epsilon \dot{\chi} \sigma \epsilon \rho \gamma a \sigma \mu \dot{\epsilon} \nu a$, second those partly worked $(\hbar \epsilon \mu i \epsilon \rho \gamma a)$, and third those which were still unworked. The list of stones completely worked begins in B, col. I, l. 93, and extends to C, l. 2; we cannot be certain as to how much is missing in the gap, but I should estimate that the loss was

¹ For this portion of the text see A.J.A. 1908, pp. 184-185.

about 30 lines, so that we may tentatively number the 14 lines of fragment C as col. I, ll. 131-144. The list of heμίεργα would then begin with col. I, l. 133, and continue through at least 93 lines of column II of fragment B (ll. 8-100); how much is lost at the bottom of column I is uncertain, but can be estimated as at least 9 lines, 2 giving the total length of column I as 153 lines at a minimum. In the list, part of which is preserved on fragments D + F, the descriptions are so summary, merely a series of dimensions, that we are evidently concerned with rough unfinished blocks. The end of this column II is 0.256 m. above the bottom of the stele; column I may well have been longer, for on the reverse the lowest letters of the first column are 0.152 m. above the bottom of the stele. If we suppose that the end of column I of the obverse (l. 153) was likewise about 0.152 m. above the bottom, then column II would have been 9 lines shorter,3 including 144 lines in all. The last 27 lines (ll. 118-144) of column II appear on fragments D+F, so that the gap between B and D would have contained 17 lines (ll. 101-117), with the conclusion of the list of heμίεργα and the title and beginning of the list of unworked blocks, an allowance that is by no means impossible.

¹ The estimate includes the following items:

101-103 two or three epikranitides (cf. B I, 16-18; C, 4-11; D, 3-5).

104-106 one capital of metopon (or in list of hεμlεργα; cf. B I, 29-32).

107–109 perhaps one antimoros of epikranitis or epistyle (cf. B I, 22–28; D, 10-12).

110-112 five or less epistylia (cf. B I, 33-35).

113-115 some eight-foot frieze blocks (cf. B II, 8-10; I.G. I, 321, 1-2 as revised below, and 29-30).

116-117 some six-foot frieze blocks (cf. B II, 11-24; I.G. I, 321, 3-5, 21-22).

118-119 at least one two-foot frieze block (cf. I.G. I, 321, 5-6).

120-121 several four-foot flank geisa (cf. B II, 25-48).

122-124 seven four-foot façade geisa (cf. B II, 49-52; I.G. I, 3212, 20-22).

125–126 one seven-foot façade geison (cf. I.G. I, 3212, 23–24, where the length has dropped out).

127-130 some raking geisa (cf. B II, 80-86).

² The estimate includes the following:

145-147 perhaps one antimoros of epistyle or epikranitis (cf. ll. 107-109 above).

148-150 one or more epistylia (cf. ll. 110-112).

151-153 some eight-foot frieze blocks (continued in col. II, 8-10).

 8 The lowest lines on the obverse are spaced about $11\frac{1}{2}\,\mathrm{mm}$; 0.256 - 0.152 = 0.104 = 9 \times 0.0115 m.

height of the stele was probably about 1.835 m., reconstituted as follows: 1.085 m. (the Chandler stone) + 0.190 m. (the missing 17 lines spaced about $11\frac{1}{4}$ m.) + 0.560 m. (fragments D + F).

On the reverse the spacing of the lines is 14 mm., so that in the first column (= column III), ending 0.152 m. above the bottom of the stele, there were evidently 120 lines, of which ll. 114–120 appear on fragment E. The end of column IV is preserved on E, as appears from the vacant space below; its position can be determined only by the adjustment of the obverse. The fractures of E and C fit together so that the bottom of the last line (l. 14) of E is 0.035 m. lower than the bottom of the last line (l. 14) of C= col. I, l. 144, which was, perhaps, 0.256 m. above the bottom of the stele; the last line of E would be therefore 0.256-0.035=0.221 m. above the bottom, and corresponds to l. 115 of column III.¹ Of this reverse, 78 lines of each column were probably preserved on the back of the Chandler stone until they were removed in the effort to render it more portable.

Next in the series of Erechtheum inscriptions come the expense accounts of this same year 409/8, of which four large fragments have already been published:

G = I.G. I, 321; Arx Athenarum³, A.E. 24; Ath. Mitt. 1911, pp. 320-321.

$$\begin{split} \mathsf{H} &= I.G. \ \mathsf{I}, \ 321^{1}, \ \mathrm{suppl.} \ \mathsf{p}. \ 148 \, ; \ A.E. \ 25 \ (\mathrm{ef.} \ Ath. \ \mathit{Mitt}. \ 1911, \ \mathsf{p}. \ 322). \\ \mathsf{I} &= I.G. \ \mathsf{I}, \ 321^{2\text{--3}}, \ \mathrm{suppl.} \ \mathsf{p}. \ 150 \, ; \ A.E. \ 26 \ (\mathrm{ef.} \ \mathit{Ath.} \ \mathit{Mitt}. \ 1911, \ \mathsf{p}. \ 334). \\ \mathsf{J} &= I.G. \ \mathsf{I}, \ 321, \ \mathrm{suppl.} \ \mathsf{p}. \ 75 \, ; \ A.E. \ 27. \end{split}$$

The relative order of the four fragments, as worked out by Michaelis (Ath. Mitt. 1889, pp. 357-361) and reëstablished by Caskey (Ath. Mitt. 1911, pp. 318-320), calls for no further discussion; it is now only a question of the intervals that separated them.² The number of stelae, and their height and

 $^{^{1}}$ 0.221 - 0.152 = 0.069 = 5 \times 0.014 m.

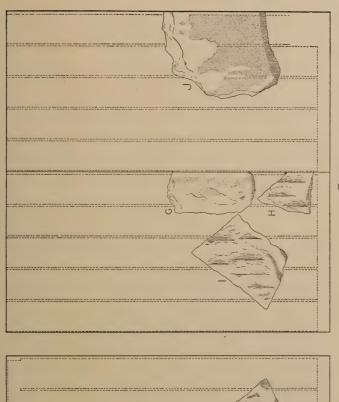
² As Caskey remarks, the attempts to assign I.G. I, 321⁴, suppl. p. 151 (by Kolbe, Ath. Mitt. 1901, p. 229) and I.G. I, 326 (by Frickenhaus, A.J.A. 1906, 14), to the series of 409/8 are mistaken; I shall soon state my reasons for dating them in the last prytany of 408/7 (fragments R and T). Also wrong are Bannier's suggestions (Rh. Mus. 1906, p. 226) for I.G. I, 331 a + b, suppl. p. 39, and 323; the latter really belongs likewise to the tenth prytany of 408/7 (fragment S), as does 331 c, suppl. p. 39, proposed by Michaelis (A.E. 27 a) and Bannier as part of our inscription of 409/8 (fragment U). Bannier includes also I.G. I, 325, which I assign to 407/6 (fragment X).

width, are alike uncertain. Frickenhaus assumed that on each stele were three columns, Caskey that there were four, Bannier that there were five. Both Frickenhaus and Caskey find that the number of stelae was four, but Bannier concludes that there was only one. Nobody has yet succeeded in bringing into relation with the rest the newly discovered inscription on the back of one of the stelae, published by Washburn (A.J.A. 1906, pp. 2–3, pl. III). We are certain only that the stelae were 0.154–0.157 m. thick, polished on both sides and set up like a parapet with double anathyroses at the joints, so that both back and front were intended to be visible.

The only attempt to join together pieces of this inscription by actual contact, that of Professor Heberdey as reported by Washburn and confirmed by Frickenhaus, was actually a failure, as Caskey was able to prove (Ath. Mitt. 1911, pp. 319-320). But, though the actual junction is impossible, there is no reason for placing fragments H and I, as Caskey does, in separate stelae; as Washburn says (l.c. p. 2, n. 2) "from the line of direction of the top of the fragments, from their thickness, and from their nature at the back, there can be no doubt, to one who examines the actual stones, that they belong together." Washburn's conclusion in this regard is unquestionably correct. The principal fracture which appears on both fragments is not that at the upper right edge of each (Ath. Mitt. 1911, p. 320), but that at the upper left edge. Therefore, while accepting Caskey's association of G and H because of their contents and the anathyrosis at the left edge, I should place in the same stele fragment I, as in Figure 2. It then appears that this stele was at least five columns in width, 1 but probably no more.

G is assigned to the first stele of the series by Frickenhaus, while Caskey prefers to place it in the second, because of the presence of the anathyrosis and the fact that it indicates a stage

¹ Bannier likewise restores the stele with five columns, but for very different reasons (Rh. Mus. 1906, p. 226). He would join the last preserved line of G to the first line of the first preserved column of I, placing H above G; the third column of I would be continued, according to Bannier, by the first column of J. The actual fragments, however, will not allow the junction of G and I; the fractures are such that to bring the first preserved column of I in the same column with G, the lines which Bannier combines must come 21 lines apart.



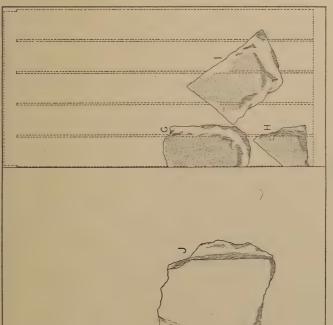


FIGURE 2, - ERECHTHEUM ACCOUNTS OF 409/8 B.C.

of the work somewhat later than that of the report; and it carries with it, as we have seen, the two fragments H and I. The date of G and H is evidently no earlier than the third prytany of 409/8; in the first prytany three frieze blocks were laid (I.G. I, 322, col. I, ll. 42-43), and in the second prytany could have been accomplished all the work which preceded that recorded in G.1 All this work could not have occupied an entire stele of five columns, preceding G; on the other hand, actual experiment shows that the whole could be written in 95 lines of text, about 20 devoted to the first prytany and 75 to the second, by no means enough for even a single column of the stele if it were of ordinary height, at least 1.80 m. I assume, therefore, that G + H, of the third prytany, are to be placed below the 95 lines devoted to the first two prytanies in column I. To the question of the anathyrosis point we shall return. Allowing for the prescript of the third prytany, it seems fair to number the 43 lines of G as column I, ll. 101-143. H follows almost directly after G, as Mr. Caskey notes, with a small gap; the direction of the principal fracture indicates a gap of 15 lines, so that we may number the 29 lines of H as column I, ll. 158-186. The relation of the oblique fracture on fragment | to that on H (the principal fracture of the stele) is such that l. 1 of the latter (= col. I, l. 158) comes opposite l. 43 of fragment I; according to the system of enumeration here adopted, fragment | contains ll. 134-146 of column II, ll. 116-160 of column III, and ll. 133-156 of column IV. Column I contained the accounts of the first and second and part of those of the third prytany, including the stonework and part of the woodwork; column II, ll. 134-146 are evidently the end of the stonework which formed the beginning of a new prytany, the fourth, of which the account is closed in col. III, l. 117; the heading in the following line would then be that of the fifth prytany, the accounts of which filled columns III (lower

¹ This work included the laying and $\hat{\epsilon}\pi\epsilon\rho\gamma\alpha\sigma la$ of four plinths and the maschaliaia, the completion of some epikranitides, the laying and $\hat{\epsilon}\pi\epsilon\rho\gamma\alpha\sigma la$ of six epikranitides and the metopon capital, the completion of epistylia on the ground and of one in place, the laying of five epistylia and the $\hat{\epsilon}\pi\epsilon\rho\gamma\alpha\sigma la$ of these and three others, the laying of the three central frieze blocks on the east and of their antithemata, the $\hat{\epsilon}\pi\epsilon\rho\gamma\alpha\sigma la$ of these and of the three frieze blocks previously laid at the southeast corner, and the laying of the west half of the north frieze.

portion) and IV. The five columns of the stele evidently contained the accounts of about $5\frac{1}{2}$ prytanies. The three preserved fragments, G, H, and I, all came from the lower portion of the stele. The total width of the five-columned stele would come to 1.048 m.; the height must have been about 2.10 m.

This stele was opisthographic; the only fragment that retains any of the back, G, has the same writing, width of column, and general contents, that are characteristic of the other fragments of the accounts. The reverse of G must have been in the fifth column of the reverse of the stele.

After these three fragments, as Michaelis ascertained, belongs J, containing the record of the laying of roof tiles and other matters of completion; the right edge is polished and intended to be visible, as Caskey notes (l.c. p. 319), forming the close of the series. It is evidently the record of the last, or tenth prytany. The back of this piece is blank, so that it cannot be fitted into the opisthographic stele composed of G, H, and I. Now the explanation of the anathyrosis at the left edge of G + H, where we need no earlier columns of accounts, becomes clear. As in all previous building accounts, e.g. those of the Parthenon, the Propylaea, and probably also the original work on the Erechtheum, it was intended that the accounts should be inscribed on the obverse and reverse of a single slab; with the gradual lengthening of the prytany accounts, however, both obverse and reverse had been occupied while yet two prytanies, perhaps, remained to be inscribed. There was no alternative but to set up a second stele, to the left of the first with an anathyrosis joint between, and to continue on its reverse the accounts of the final prytanies, while the obverse remained blank. The reverse of G was probably concerned with the stonework forming the beginning of the ninth prytany at the bottom of column X, while J contains parts of columns XIII-XV belonging to the tenth prytany.

A few notes on the published portions of Mr. Caskey's readings of the accounts of 409/8 (Ath. Mitt. 1911, pp. 317-343) may conveniently be inserted here.

¹ Frickenhaus uses this right edge as if it were a joint surface, abutting against his fourth stele.

G, ll. 1-2 (l.c. p. 320) might perhaps be read:

[νότο τοίχοι· με] ΚΟ< [ἀκτόποδας, h]ΥΦ<Ο< [δίποδας, θεντι] Γ: ΤΕΝ ΤΕΤΡ[απο]Δ[ία]Ν ΗΕΚ- Γάστεν

This entry need not refer to $\epsilon \pi \epsilon \rho \gamma a \sigma i a$, and therefore to the epistylia, merely because the rate is given by tetrapodies (l.c. p. 323); it is more probable that we are concerned with the frieze. Rates are given for all kinds of work done on the south frieze (the beginning of the account—no rates are given for the east frieze, and only half of those for the north); since the frieze blocks themselves vary in length, a common rate could be given only in tetrapodies; and it happens that the rate for laying the Eleusinian stone of the frieze was actually 5 dr. per tetrapody (Il. 5, 6, 23, 31), just as here, I think, we have the statement of that fact. On the other hand, the universal rate for $\epsilon \pi \epsilon \rho \gamma a \sigma i a$ on the frieze, even when the wide Pentelic antithemata were included, was only 3½ dr. per tetrapody (ll. 18, 28, 43). The missing letters at the beginning of 1, 2, restored by Mr. Caskey as the dual [δυοίν ποδοίν], can find no parallel among the other dimensions given in these inscriptions except where the inclusion of a fraction did not allow the simple adjective $\delta i\pi o(v)$ s (B, col. I, ll. 34, 38).

H, ll. 8-9 (l.c. p. 322) I should read as

LI-

 $[\theta$ ον ἀριθμὸς : Δ ΓΙΙΙ :] ΑΝΤΙ \odot [έ]ΜΑΤΑ $[\Gamma$ εντελεικὰ : ΓΙ : Λ έ]ΛΙΝΑΙ/ $L[\Delta]$ ΓΙΙ

With $\lambda \ell \mid [\theta o \iota ' E \lambda \epsilon \nu \sigma \iota \nu \iota a \kappa o \ell]$ we should have only one space for the number of frieze blocks, of which fourteen were set on the

¹ A seeming discrepancy of price in l. 28 is easily explained. The text (l.c. p. 321) reads Γ II (as on the stone), the rate then being $3\frac{1}{2}$ dr. per tetrapody; the sum should have been, more accurately, 5 dr. $1\frac{1}{2}$ obols for the six feet. Mr. Caskey later refers to this item as 7 dr. (l.c. pp. 327, 331), as if he had read it Γ l·, and thereupon draws the conclusion that $\epsilon \pi \epsilon \rho \gamma \alpha \sigma i a$ on the east frieze was more costly than elsewhere, 4 dr. 4 obols per tetrapody. The distinction between $\pi \lambda \dot{\alpha} \tau \sigma s$ (l. 25) and $\hbar \dot{\nu} \phi \sigma \sigma s$ (ll. 9, 33) does not seem so certain as to give a plausible reason for a difference in price; the text gives only the final s of one $\hbar \dot{\nu} \phi \sigma \sigma s$ and nothing of the other, while I seemed to see [.] ¹[...] ≤ and [....]O[.] respectively, as if we should read $\pi \lambda \dot{\alpha} \tau \sigma s$ for the three sides of the east portico, and so for all five cases in which antithemata are mentioned.

south, east, and north sides. The number of Pentelic antithemata is probably not IIII (pp. 322, 326) but FI (cf. G, ll. 7-12, 24-26, 32-35); for as Mr. Caskey notes elsewhere (pp. 326, 327, 331) the antithemata on the east façade seem to have been of Pentelic marble, though this fact is not expressly stated in ll. 24-26. Of the number of Aeginetan antithemata there seem to be more traces than Mr. Caskey shows, and the number seems to have been larger than the four outer walls of the temple would have allowed; perhaps some of these blocks were on the cross wall, since 21 lines (15 in the gap between G and H, 6 on H) are more than we need for the west wall alone.

I, col. I, l. 23, might be read:

$[\Gamma: - : \mu \hat{\epsilon} \kappa os \ \hbar \epsilon \pi \tau \acute{a} \pi ov, \pi \lambda \acute{a} \tau o[\le TPIΓON]$

As Mr. Hill and Mr. Caskey point out, the southwest geison was unique with the longer face, given as $7\frac{1}{2}$ feet, toward the south flank (*l.c.* pp. 335, 337); the normal angle geisa are given as 6 feet long, their greater lengths towards the façade (*l.c.* pp. 335, 336). On the analogy of the southwest geison Mr. Caskey likewise revolves that at the northwest corner

¹ The foot used in the Erechtheum and the Propylaea seems to have been 0.32725 m. long, the tetrapody, in the blocks furnished by the contractors, being then 1.309 m. But the blocks were trimmed for their places to an average length of 1.2985 m., so that the surveyors measuring the blocks in situ should, to be accurate, have used a unit of 0.3246 m. The total length of the south geisa was $70\frac{1}{2}$ of these feet, as if it were composed of $3\frac{1}{4}$ feet of the east angle geison, sixteen regular four-foot geisa, and 31 feet of the west angle geison. The returns of the normal angle geisa were $3\frac{1}{4}$ feet, not $3\frac{1}{2}$ feet as the inscriptions generally give them (though 1. 27 correctly gives 31 feet); the variation is due to the fact that the dimension needed to be merely approximate in the inscriptions as a means of identification. The regular geisa average exactly four feet of 0.3246 m. in length, the approximate designation by the surveyors here coinciding with a stock size, the tetrapody furnished by the contractors. The unique block 7\frac{1}{2} feet long was more probably 71/4 feet long, its end coinciding with the normal location of a joint and not quite reaching to the pilaster of the metopon, so that it would have required a thick frieze below it, with the soffit exposed in the niche, as along the west side of the southwest wing of the Propylaea. If the longer face of this angle geison had been toward the west, it would have needed to be at least 9 feet long, since here a thick frieze below it would have been impossible. And if, with the longer face toward the south, it had been intended to disregard the jointing system and obtain a bearing on the pilaster of the metopon, this bearing would surely have been made greater than the almost useless amount of 5 cm. obtained even with a length of 7½ feet.

(which was, however, of normal size) so as to bring its longer dimension toward the flank of the building. But it seems difficult to imagine that, when at the southwest corner the abnormal conditions (the niche and the Kekropion) were not allowed to affect the jointing system of the geisa, these same conditions should have entirely disarranged the northwest corner, where there was no reason for any change. The sole reason for revolving the northwest geison seems to be, to give the special intermediate geison (l. 23) a length in even feet without a fraction, that it may be fitted to the lacuna in the inscription (l.c. p. 338). If we follow the approximate measurements of the inscription less literally, we may subtract from the total length of the west geison, actually 361 instead of 36 feet, the lengths of the northwest ($6\frac{1}{6}$ instead of 6 feet) and southwest (approximately 3½ feet) angle geisa, leaving an intermediate space of approximately 262 feet. The length of the special block must have been $2\frac{2}{3}$ or $6\frac{2}{3}$ feet, or rather to fit the lacuna in the inscription, τρίπου or hεπτάπου; the latter must be preferred in order to obtain a bearing above the southernmost column (cf. l.c. p. 338). As the short returns of the other angle geisa, given as $3\frac{1}{2}$ feet, must be reduced to $3\frac{1}{4}$ feet, so for the southwest geison we are probably to interpret $3\frac{1}{5}$ feet as $3\frac{1}{6}$ feet. On the west, as on the south, the jointing system was not disturbed by the abnormal conditions at the southwest corner; the difficulties were overcome by inserting a joint in one case, by suppressing a joint in the other. The total number of four-foot geisa on the west must have been five, not six; but, as Mr. Caskey points out (l.c. p. 338), the angle geisa were not laid in this prytany,2 and the same may have been true of others, thus reducing the number at the beginning of the line to even less than Γ .

I, col. II, ll. 8-42, show that the jointing of the blocks of the west tympanum was unlike that in the east pediment. The variations in height and length are explained by Mr. Caskey as the simple result of an attempt to break joints with the peculiarly arranged west geisa, though the variation in thickness

¹ With the length of 6 (or rather $6\frac{1}{6}$) feet toward the north, the next geison on the north must have been $5\frac{1}{12}$ instead of 4 feet long.

² But at least one angle geison must have been laid in a preceding prytany, so that the restoration $\dot{\epsilon}\kappa\pi o \iota \dot{\epsilon}\sigma a \nu \tau \iota$ (Il. 28, 31), denoting work done on the ground, does not appear to be as suitable as $\dot{\epsilon}\pi\epsilon \rho \gamma a \sigma \mu \dot{\epsilon}\nu o \iota$ or a similar word denoting work done in place for the reception of the end of the raking geison.

was intended to decrease the load on the lintel of the small west door and on the thin epistvle at the southwest corner (l.c. pp. 338-341). Now that we have found no peculiarities in the geison jointing that could have affected the tympanum, I feel that another explanation of these variations is required. It is apparent that the builders of the Erechtheum employed every device known to them to decrease the tremendous strain on the lintel spanning the tomb of Cecrops. A possible device would have been the cantilever system employed in the Propylaea (A.J.A. 1910, pp. 146 ff.); the south κερκιδιαίος could have been so designed as to balance itself and its superposed load exactly above the southernmost column, relieving the south anta of much of the weight. Then the κερκιδιαίος would have been seven feet in length; to allow for this increased length, the next block and the κορυφαίος would have been reduced, the latter, as we learn from the inscription, to four feet. The north half of the tympanum seems to have remained undisturbed, so that the κορυφαίος would have been centred one half foot north of the axis of the pediment.

To the accounts of the next year, 408/7, have been assigned seven pieces, *I.G.* I, 324 a-e (which I number K to O), and Ath. Mitt. 1901, pp. 223, 224 (P and Q); the date was obtained by Kirchhoff (Abh. Berl. Akad. 1864, p. 52, by Ferguson (The Athenian Secretaries, p. 27) from the order of prytanizing tribes, and by Kolbe (Ath. Mitt. 1901, p. 225) from the new fragment P with the archon's name $E[i]\kappa[\tau \epsilon \mu o v o s]$. I include also six other pieces, *I.G.* I, 321 4 (R), 323 (S), 326 (T), 331 c (U), 331 g (V), and *I.G.* II, 4331 (W).

These accounts were inscribed on slabs only about 10 cm. thick, evidently intended as a revetment; the backs are all roughly picked except in the case of T and U.4 The thinness accounts for the small size of the slabs. The complete height given by M is 0.950 m. The width is in no case preserved, for no piece is wider than two columns; but the broken left

 $^{^1\}mathrm{This}$ was rejected by Michaelis (Ath. Mitt. 1889, p. 356; A. E. 28) in favor of the second half of 409/8.

² As assigned by Michaelis, A.E. 28 f.

³ W assigned to this account by Bannier, Berl. Phil. W. 1911, p. 854.

 $^{^4}$ It was evidently these two fragments that led Washburn to say (A.J.A. 1906, p. 3) that these slabs are smooth behind.

edge of M shows that the width was originally more than two columns, and the dowel cuttings in the top and bottom of M lie at one side of the intercolumnar space, not centred on it as we should expect if there were only two columns, while the mediaeval splitting along the middle of the second column of K implies that here was the axis of a three-columned slab; the original width would have been about $3 \times 0.224 = 0.672$ m. Each slab had thus a quarter of the area of a normal stele; could it have been that four were first set up together, with the total dimensions about 1.344×1.900 m.?

The relation of the number of columns to the number of slabs has not been considered in previous restorations. Kirchhoff indeed suggested that there was originally only one slab, later cut into smaller pieces (*I.G.* I, p. 172). Robert arranged the accounts in thirteen or fourteen columns, the first of which contained the four fragments of 409/8, according to the theory of Michaelis (*Hermes*, 1890, pp. 439–442). Kolbe returned to Kirchhoff's theory, separating the two years and associating L and M; he restored nine columns for the accounts of 408/7 (*Ath. Mitt.* 1901, pp. 231, 234).

The fact that the bottom of the first preserved column of M cannot be combined with the top of the second has long been recognized as evidence that the inscription was more than one tier of slabs in height. To assume with Kolbe (l.c. p. 232), however, that there were three tiers merely because M has dowel cuttings both on top and bottom, and so might have been dowelled to a tier below and a tier above, seems impossible. In the eighth prytany the total expenditure was 1239 dr. 1 ob., of which we have preserved 907 dr. at the bottom of one column of M and 126 dr. 1 ob. at the top of the next; above or below this slab, therefore, were listed the remaining 206 dr. which, as they must have been expended on very detailed woodwork, could conceivably have filled the height of one more tier, but certainly not of two more. In close proximity with M was K, containing the beginning of the account of the seventh

 $^{^1}$ There were probably two dowels as in the decrees for the Temple of Athena Nike, 'Ep. 'Ap χ . 1897, pl. 11.

 $^{^2}$ His other reasons I disregard because they are based on the false assumption that L, N, and P are to be associated with K and M.

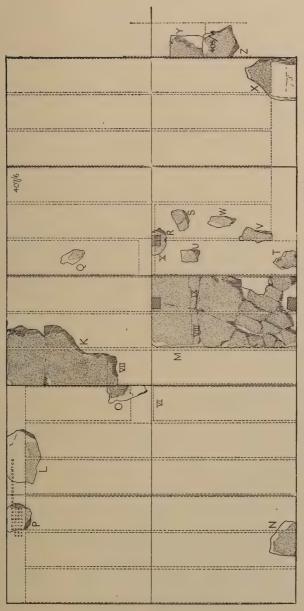


FIGURE 3.—ERECHTHEUM ACCOUNTS OF 408/7 TO 405/4 B.C.

prytany; it has always been assumed that the two are to be placed side by side in the same tier. These two cannot, however, have formed the left (K) and right (M) edges of one and the same slab, which would then have been four columns in width; for the top of K is roughly tooled 1 and without a dowel cutting, while the top of M is smooth and has a dowel cutting. Nor can we place them side by side in separate slabs, each of three columns (if not more); for while the eighth prytany occupied exactly one column, the seventh prytany would have occupied almost four columns at least, an impossible proportion. Therefore we must place K vertically above or below M, making, if there were originally three columns in each, the second column of the one coincide with the first preserved column of the other. Since the first preserved column of M is not continued by the second column of K, and since the top of K has no dowel cutting for the bottom of M and is too rough to form a bed, it is certain that K is to be placed above M. Then the rough top of K is paralleled by the unpolished tooth chiseling on the top of L (the top of P is worn away), and is without dowels, forming the top of the upper tier.2 Such a disposition would be confirmed if the first column of K were continued on the missing first column of M, or if the second column of K were continued on the first preserved column of M. The first test is now impossible. The last remaining items of the second column of K (ll. 22-40) are concerned with the removal and resetting of the sculptors' scaffolding. In the next missing 47 lines 3 should have followed payments for the frieze sculptures placed by means of this scaffolding; and it is noteworthy that ll. 1-22 of the same column on the lower slab M are concerned with such frieze sculptures; nine figures or groups costing 867 dr. occupy the 22 lines, and to make up the missing 2448 dr. (the total for sculpture on this prytany is 3315 dr.) we should require about twenty-five figures or groups occupying about 61 lines, fitting the allowance of 47

¹ It is original, though Kolbe thinks otherwise (l.c. p. 233, "oben ein Teil abgeschnitten ist").

 $^{^2}$ There is a slight difference, owing to the employment of a different workman, in that the tops of L and P are level (cf. the Parthenon and Propylaea stelae), while that of K slopes down toward the back.

³ Supposing that there were 87 lines in the upper as in the lower slab.

lines if the proportion of the cost devoted to groups was somewhat larger.

With this combination of K and M, there is no possibility of bringing into relation with them the fragments correctly united by Kolbe, L, N, and P. His reasons for combining all five pieces are: (1) the fact that Kirchhoff had already done the same (in the case of K, L, and M), and (2) a desire to bring the title (composed of P and L) in the centre of the series of slabs. I may observe that it is most improbable, judging from experience with other stelae, that the entire number of slabs should have been so accurately foreseen at the beginning of the year as to allow of any such axial position. Kolbe attains, moreover, what is by no means an axial position for the title only by the most violent compression of the first six prytany accounts, and by placing K in an impossible relation to M. Robert (Hermes, 1890, p. 439) had long before set aside the assumption that Kirchhoff's reasoning must be correct; but he, too, was bound by the impression that L with the title must have an axial position; he had attempted to demonstrate, however, what Kolbe afterwards rejected, the freedom of L from K and M.1 Kolbe's certain arrangement of L, N, and P-

P LI LII NI NII

would require four columns in each slab if P and L are to be united in one; but if there were only three columns in each slab, we must suppose that a joint lay between P and L. Not only is it impossible to combine them with K and M, but they occupy so much space that we may with certainty place them before K and M, in the first six prytanies. Since each of the prytany accounts on K and M occupies one column or slightly more (when it is a question of sculpture), we may conclude that for the first six prytanies we should require two slabs in each tier, giving six columns besides the 58 lines of the sixth prytany on K. To these first two vertical pairs of slabs belong the three fragments L, N, and P; P and L, with their roughly

 $^{^{-1}}$ Pallat and Frickenhaus follow Kolbe in the association of K + M and L + N + P (A.J.A. 1912, p. 188, n. 1).

tooled tops, give the beginnings of columns III and IV-V; N has the ends of columns II-III. The bottom of column II and the top of column III are concerned with stonework, the beginning of a prytany account, evidently the third; ¹ the bottom of column III and the top of column IV are concerned with sculpture, the end of a prytany account, evidently again of the third prytany, which would have been particularly long because it included work on sculpture (as in the seventh and tenth prytanies).² At the top of column V appears woodwork, near the end of the fourth prytany.³

Two other fragments have been accepted without question, O and O. The former is always placed at the very end of the inscription, in the tenth prytany, because the right edge is preserved. The vertical edges of K and M, on the other hand, are said by Kolbe (l.c. p. 232) to be treated as joint surfaces with anathyroses; these are not anathyroses, however, but decorative marginal draftings, and they are no more treated as joint surfaces than is the edge of O;4 that they were used as joint surfaces, abutting against other slabs, is nevertheless certain, and the same is true of the right edge of O, for what we must identify as the final slabs of the series had writing of an utterly different character. The edge of O has the same rough toothed chiseling that appeared on the top of the original pair of slabs (as shown by L). As appears from the position of the title, the first two pairs of slabs (fragments L, N, and P) were set up together and may have had an anathyrosis joint between them; the place for O is the once exposed right edge of the second pair of slabs, where in the upper part of column VI it would form the conclusion of the fifth prytany

 $^{^1}$ Kolbe assumes that because the scaffolding of the columns in the north porch was taken down in the sixth prytany, the fluting of the eastern columns (on N and P) was begun only after that date. But Mr. Hill has shown (A.J.A.) 1910, pp. 292, 294) that the scaffolding of the columns of the north porch was transferred, not to the east portico, but to the west cella.

 $^{^2}$ Kolbe assumes that because a great deal of sculpture is missing from the account of the seventh prytany, N and L must be fragments of that account.

³ It is unnecessary to suppose that, merely because the bent beam was set in the sixth prytany, L must be later; here it is a case of working out on the ground the woodwork connected with the beam, before it was set in place.

 $^{^4}$ For a proper anathyrosis in a vertical joint surface, compare the left edges of $\mathsf{G} + \mathsf{H}.$

account, with the items referred to in the account of the sixth prytany (column VII, K 52-53). The reason for the empty lower part of the fragment would seem to be that the account ended so near the bottom of this upper slab that the title for the sixth prytany was placed on the lower slab, as was the case also in the tenth prytany. The small fragment Q seems to refer to similar work of gilding ceiling rosettes and eyes of columns; it cannot be combined with O and could hardly be earlier; its place would be therefore in the ninth prytany, immediately following M, which closes in the midst of similar items.

The method followed in setting up the slabs of 408/7 is now certain. To approximate the size of a normal stele, two vertical pairs of slabs were set up side by side, the upper tier doweled to the lower, and the lower to a plinth; the exposed vertical edges and the top of the upper tier were roughly tooth chiseled but not polished; the backs of the slabs were roughly picked, except near the edges where a narrow projecting margin (a rough anathyrosis) was left to make a close joint against the background. Symmetrically disposed about the joint marking the axis of the combined pairs of slabs was the title $\lceil \hat{\epsilon}\pi \hat{\iota} \rceil$ $E[\hat{v}]K[\tau \epsilon \mu o \nu o \sigma \alpha \rho \chi o \nu] TO \leq 1$ occupying exactly the width of the two central columns of the original series of six. When these six columns, each evidently of 163 lines,2 had been filled, another workman set up a third pair of slabs, with columns VII-IX, each of 174 lines; the slabs were similar to the original four, except that the edges were picked, with a decorative smooth marginal drafting, and the top of the upper slab was left rough. Column IX was entirely filled when only 64 lines of the ninth prytany account had been inscribed; there was no alternative but to set up a fourth pair of slabs, with columns X-XII. The small sliver Q, from the uppermost part of column X, gives no hint as to any technical peculiarities of this

¹ Kolbe believes it necessary to precede these three words by ['Αθεναΐοι ἀνέλοσαν], to be symmetrical about the words [άρχ]|TEKT[ον | 'Αρχ]|LOXO[s | 'Αγρν]LEΘΕ[ν]; this formula does not appear on other building inscriptions and cannot be symmetrically related to any disposition of the slabs.

² The upper tier is supposed to have been of the same height as the lower, which contained 87 lines; the space allotted to the title is equivalent to the height of 11 lines.

fourth pair of slabs; but the fragments of the lower slab of the pair, now to be discussed, show that they were smooth behind, and so again the work of a different stonecutter.

The ninth prytany account, to be of the customary length, must have filled at least the upper half of column X; this would leave most, if not all, of the part of column X on the lower slab, for the beginning of the tenth prytany account. The small fragment R, with the smooth top and dowel hole characteristic of the lower tier of slabs of 408/7, the same size and style of letters, the same formulae and lengths of lines, as in the earlier prytanies of 408/7, exactly fits here; the dowel cutting is at the left of the intercolumnar space, so that R is from the upper left-hand corner of the slab, the opposite of M where the right-hand dowel is at the right of the intercolumnar space. R contains therefore in column X the beginning of the tenth prytany account, with a margin of 0.025 m. to separate it from what came above; in column XI is the continuation of the same account (work in sculpture) with the same margin continued, doubtless a mistake of the stonecutter. The fact that the letters are irregularly arranged, i.e. not stoichedon as in the rest of the account of 408/7, seems to have been a peculiarity of the tenth prytany.2 Two small fragments, S and U,3 clearly belong together; the writing is larger than that on any fragments that I have yet mentioned, but the formulae and names of workmen, and the thickness of the slab (U = 0.092m. with smooth back), are the same as in the accounts of 408/7, with the non-stoichedon arrangement characteristic of the tenth

¹ Kirchhoff (I.G. I, suppl. p. 151) suspected that this was perhaps of 408/7 rather than of 409/8, with which it was classed; this was confirmed by Ferguson (The Athenian Secretaries, p. 26), who restored ['Eρεχθεί]ΔΟ≤, fitting the tribal order of 408/7, and it was so accepted by Michaelis (A.E. 28 f). Kolbe (l.c. p. 229) and Frickenhaus (A.J.A. 1906, p. 14) return it to 409/8, which Caskey rightly says (Ath. Mitt. 1911, p. 318) is impossible.

² The two other fragments hitherto assigned to the tenth prytany, N and O, are *stoichedon*; this attribution of N, by Fabricius and Michaelis, was proved impossible by Kolbe; O has been discussed above. I have assigned N to the third prytany, O to the fifth.

³ S was attributed to the series by Stephani (*Annali*, 1843, p. 327), but doubted by Kirchhoff; Michaelis includes it as a sort of appendix (*A.E.* 29); Bannier (*Rh. Mus.* 1906, p. 226) assigned it to 409/8. U was attributed to some Erechtheum account by Kirchhoff (*I.G.* I, suppl. p. 151); Michaelis (*A.E.* 27 a) and Bannier (*I.e.*) include it in the account of 409/8.

prytany. U is concerned with woodwork, S with sculpture: if the writing on this slab increased in size toward the bottom, S would come below R in column XI, and U, earlier in the account because woodwork always precedes sculpture, would come at the same level in column X. The supposition that the writing enlarged toward the bottom of the slab is confirmed by T.1 which has letters larger even than those of S and U, and preserves the original smooth bottom of the slab; 2 it is smooth on the back, and of the same thickness as U. The items refer to woodwork, so that it must be placed in column X, below U; the last line is not continued by the first line of R in column XI, so that, as in the previous pairs of slabs, we may be certain that column XI began in the upper tier. Fragment W has even larger letters inscribed somewhat carelessly and not stoichedon; 3 it continues S with entries of sculpture, 4 and so may be placed in column XI. Finally the fragment V,5 with extremely widely spaced and careless letters, is certainly to be combined with W, though not in actual contact; it has the narrow intercolumnar space characteristic of the Erechtheum accounts, and to the left of this appears one letter (E) of the more closely spaced column X; it concludes the tenth prytany account, i.e. the entire account of 408/7, near the bottom of column XI, with the total payment for sculpture and the balancing of receipts and expenses.

The accounts of 408/7 closed while the Erechtheum was still unfinished, and while column XII was unoccupied. It is natural to suppose that what little remained to be done in 407/6 was recorded in column XII. A fragment, I.G. I, 325 (X),6 has the same width of column (0.22 m.) and the same size of

 $^{^1}$ Schöne (*Hermes*, 1870, p. 54) refused to assign T to the Erechtheum; Frickenhaus (*A.J.A.* 1906, p. 14) attributed it to the account of 409/8, whence Caskey (*Ath. Mitt.* 1911, p. 318) rightly ejected it.

² Kirchhoff wrongly says that it is broken on all sides.

³ Assigned to the account of 408/7, but without closer identification, by Bannier (*Berl. Phil. W.* 1911, pp. 853-854).

 $^{^4}$ Cf. l. 5 [τè] Ν ΛΥΝ[αῖκα], and l. 8 [τèν γ] ΥΝΑ[ῖκα] as in column VIII, M 21.

⁵ Assigned to the Erechtheum, but without closer identification, by Bannier (*Rh. Mus.* 1906, p. 226).

⁶ Pittakis (' $\to \phi$. ' $A\rho \chi$. no. 418) had assigned it to the Erechtheum accounts, and Bannier (Rh. Mus. 1906, p. 226) placed it in the accounts of 409/8.

letters as in the accounts of 408/7 (the extravagant spacing of the tenth prytany being repressed), and betrays the hand of the same "Cockney" scribe who has seized the new fashion of omitting the aspirate H only to apply it where it was never used. The form of the account, giving the total of the wages paid day by day, is very different from the accounts of 408/7. This common authorship and the change of formulae cause me to date X as of 407/6; it comes from the lower corner (with a smooth right edge) of a slab somewhat thicker than those previously noted (about 0.105 m.), and so not from column XII, but from the lower of a fifth pair of slabs (column XV). The last line ends 0.167 m. above the bottom of the slab, while the account is not yet finished, so that it must have been continued on a sixth pair of slabs.

Probably the temple would have been finished in 407/6 but for an untimely accident, the fire of 406 in the παλαιὸς νεώς (Xenophon, Hell. I, 6, 1). Whether the παλαιὸς νεώς was the Erechtheum or the old Hekatompedon matters little in this connection; the fire, if not actually in the Erechtheum, certainly injured it at least. For we possess a fragment of an inscription, I.G. II, 829 (Z), which seems to record repairs after a fire,² with formulae exactly like those of the Erechtheum accounts.³ The thickness of the slab, moreover, is 0.098 m., the back roughly picked with a smoother margin near the edge, exactly as on the original four slabs of 408/7. The text of Z has the same form of daily entries that appears on X. The reduction in the size of the writing would be explained by reasons of economy; otherwise the repairs occasioned by the fire would have necessitated a great increase in the number of the

¹ Kirchhoff and Bannier say that the left edge is preserved.

² The restoration $\kappa \epsilon \kappa a [\nu \mu \acute{\epsilon} \nu a]$ in l. 4 has always been accepted, except by Judeich (Topographie, p. 244, n. 6), who suggests as alternatives $\kappa \epsilon \kappa a [\lambda \nu \mu \mu \acute{\epsilon} \nu a]$ or some form connected with $\kappa a \iota \nu \acute{\epsilon} s$. Perhaps the most conservative restoration would be a verb derived from $\kappa a \iota \nu \acute{\epsilon} s$, since $\kappa a \iota \nu o (\acute{\nu}) s$ itself occurs in line 14; but even these renovations would probably have been caused by a fire, so that we may return to the original interpretation of the inscription.

³ Those who identify the $\pi \alpha \lambda \alpha i \delta s$ vews with the Erechtheum naturally assign this fragment to the Erechtheum accounts; and even of those who follow Dörpfeld's view as to the actual location of the fire, Michaelis (*Jb. Arch.* I. 1902, p. 3, and *A.E.* 30) and Judeich (*Topographie*, p. 244, n. 6) agree that the inscription refers to repairs in the Erechtheum.

slabs. The generally accepted date of Z, $\lceil \epsilon \pi \rangle \Delta \rceil \iota \lceil \phi \phi \dot{\alpha} \nu \tau \sigma \rceil$ ἄρχον[τος], is due to the first publication by Köhler (Hermes, 1867, p. 21), when it was supposed that the lines began one letter farther from the left edge than is actually the case, so that line 1 would have begun with $[\Delta]\iota[o\phi\acute{a}\nu\tau o]$; republishing it in the Corpus (I. G. II, 829), Köhler showed traces of the actual left column of letters but did not draw the obvious inference from the new arrangement. We should now be forced to read $[\epsilon \pi]$ in one line and $[\lambda \Delta] \iota [o\phi \acute{a}\nu \tau o]$ in the next, a most improbable manner of beginning a new annual account. Better is $[\epsilon \pi]$ [-----] ἄρχον[τος] beginning the new line; the solution proposed by Cooley and Dörpfeld (A.J.A. 1899, p. 352, n. 3), $[\epsilon \pi] i [Ka\lambda \lambda io] a \rho \chi o \nu [\tau os] (406/5)$, would fit exactly; the only other possible name between 412/1 and 377/6 is 'Aλεξίο (405/4). I select 'Aλεξίο rather than Καλλίο for the following reason. There is in the Epigraphical Museum at Athens another fragment, I.G. II, 845 (Y), which joins accurately the top of Z, and evidently therefore dates from the year previous to that of Z. Together they seem to have formed the left edge of a sixth pair of slabs.3 We may then be certain that the date of Z is 405/4, not 395/4; Y and Z together betray too much uncertainty in the use of Attic and Ionic letters to date from a later decade. Y, of the previous archonship, is therefore of 406/5, the year of the fire, when the unexpected continuation of the work led to the adoption of smaller letters. X, of 407/6, forms the connecting link, with the lettering of 408/7 and the formulae of 406/4.4

WILLIAM BELL DINSMOOR.

ATHENS, 1912.

¹ Doubted only by Dörpfeld (*Ath. Mitt.* 1887, p. 47), Cooley (*A.J.A.* 1899, p. 352, n. 3), and Judeich (*l.c.*).

² This inscription has ± instead of X≤.

 $^{^3\,\}mathrm{In}$ the combined fragments, ll. 1–22 = 1–22 of Y; l. 23 is obliterated ; ll. 24–44 = 1–21 of Z.

⁴ The date of the Carpathian inscription $(A.E.\,31)$, given by Foucart as 394 or 393 B.C., rests primarily on the supposed date 395/4 given to the fragment Z $(B.C.H.\,1888,\,\mathrm{p.}\,158)$; if the inscription is to be connected with the Erechtheum at all, it may be ten years older. Whether the date of the fire mentioned by Demosthenes (XXIV, 136, p. 743) can likewise be pushed back to 406, as Dörpfeld would prefer $(Ath.\,Mitt,\,1887,\,\mathrm{p.}\,44)$, depends largely on the identity of the $\pi a \lambda a \iota \delta s$ νεώs.

CORRECTION TO A.J.A. XVI, 1912, P. 477

In the sentence at the end of the second paragraph on page 477 of the last volume of this JOURNAL, read "according to Arrian" for "according to Polybius." The passage referred to is Arrian, *Anabasis*, I, 17, 6.

HOWARD CROSBY BUTLER.

ARCHAEOLOGICAL DISCUSSIONS 1

SUMMARIES OF ORIGINAL ARTICLES CHIEFLY IN CURRENT PUBLICATIONS

WILLIAM N. BATES, Editor

220, St. Mark's Square, Philadelphia, Pa.

GENERAL AND MISCELLANEOUS

Early Civilization in Barbarian Europe. — In C. R. Acad. Insc. 1912, pp. 309-316 L. Joulin points out that in the eighth and seventh centuries B.C. iron was in use in Eastern Europe although the civilization was not far advanced because of the nomadic habits of the people; in Central and Western Europe, except where there was contact with the Greeks, bronze was the metal used. In the sixth and fifth centuries bronze was still employed in Northern Germany, Scandinavia, and Britain; in Southern Germany there existed the Hallstatt civilization using both bronze and iron; in Northern Illyria and Venetia there was a civilization drawing from that of Italy, and Hallstatt; in Hungary, Bosnia, Gaul, and Spain iron was known through commerce, but not much used. The Celts dominated all Central and Western Europe at this time. At the beginning of the fourth century B.C. La Tène civilization replaced that of Hallstatt, especially in Southern Gaul and Spain, where coined money was adopted in the third century. To oppose the Romans many fortifications showing Greek influence were built with variations from ashlar masoury to massive cyclopean walls. Roman civilization had, however, penetrated to these countries before their conquest.

The Prehistoric Cemetery at Shamiram-alti. — Although we now know much about the early Bronze Age cultures of Western Asia, our information concerning the later Stone Age is confined to a few sites, and

¹ The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor Bates, Editor-in-charge, assisted by Professor C. N. Brown, Miss Mary H. Buckingham, Mr. L. D. Caskey, Professor Harold R. Hastings, Professor Elmer T. Merrill, Professor Frank G. Moore, Professor Charles R. Morey, Dr. James M. Paton, Professor Lewis B. Paton, Professor A. S. Pease, Professor S. B. Platner, Professor John C. Rolfe, Dr. N. P. Vlachos, Professor A. L. Wheeler, and the Editors, especially Professor Marquand.

No attempt is made to include in this number of the JOURNAL material published after December 31, 1912.

For an explanation of the abbreviations, see pp. 146-147.

any new or additional data bearing on the subject have consequently considerable importance for those interested in tracing out the origins of civilization in the Nearer East. In S. Bibl. Arch. XXXIV, 1912, pp. 198–204 (4 pls.), L. W. King reports that at a site near Shamiram-alti, not far from Van in Armenia, Dr. Belck partially excavated a prehistoric cemetery, which yielded not only a quantity of stone axe-heads and other tools and implements but also a great wealth of painted and unpainted pottery. The specimens of pottery and tools which are here published are the property of Lieut.-Col. F. R. Maunsell, and they were presented to him at the time of their discovery when he was acting as Military Vice-Consul at Van. They are the first examples to be published of the results obtained by the excavations at Shamiram-alti.

Carthaginian Tombs at Malta. — The contents of a rock-tomb found near Rabato in Malta are dated in the seventh or eighth century B.C. by a gold medallion similar to one at Carthage and a small proto-Corinthian scyphus. Fragments of a Corinthian bowl now in the Roman Villa Museum at Notabile and probably found on the estate, are of the yellow clay characteristic of the earlier Corinthian ware and may also be dated in the seventh century. These Maltese tombs, which are commonly called Phoenician, should be called Punic, as they belong strictly to the Carthaginians, never to men from Phoenicia, and sometimes contain Greek vases as late as the fourth or even the third century. (T. R. Peet, J.H.S. XXXII, 1912, pp. 96-99; 3 figs.)

The Horn Motive in Religion. — In Arch. Rel. XV, 1912, pp. 451–487, I. Scheftelowitz discusses the significance of horns in representations of gods, demons, kings, priests, on the alter as signifying holiness, on amulets

to ward off evil, etc.

The Evolution of Ornament.—The author of L'Évolution ornamentale, Georges de Recy, gives in three popular lectures a sketch of the history and development of ornament from the earliest period of Egyptian history to the twelfth century. His main purpose is to show that the foundation of occidental ornament is oriental, even when it is derived through or practised by European tribes or nations. [L'Évolution ornamentale depuis l'origine jusqu'au XIIº Siècle. Conférences faites à la salle de la Société de Géographie les 8, 10 et 14 mai, 1912. Avec une Préface de François Courboin. Paris, 1913, Alphonse Picard et fils, 276 pp.; 218 figs. 8 vo. 15 fr.]

Cenotaphs and Sacred Localities. — In B.S.A. XVII, session of 1910–1911, pp. 182–192, W. R. Halliday concludes that in many cases, at least, in which a place is supposed to be sacred by reason of the existence of the tomb of some sacred person, the sanctity of the place is older than this association and goes back to a time before any distinct personality was connected with it.

The Lion-headed God of the Mithraic Mysteries.—In the Mithraea at Heddernheim there was found a niche, or recess, all entrance to which was closed with a slab of basalt in which a conical hole was bored, so as to permit the curious to look through at what it contained. This was a single statue of considerable size representing a monster with a head of a lion, with a serpent wrapped round his body, and with four wings attached to his back. He bears in his hand a key, and his body is that of a man. There have been twenty-five examples of this monster found in different

Mithraea. In S. Bibl. Arch. XXXIV, 1912, pp. 125–142 (7 pls.), F. Legge holds that there is a great deal to connect the lion-headed figure with Ahriman, or the God of Darkness. As the God of Darkness, the connection of the lion-headed figure with the earth on which he stands is plain enough. The "Cosmocrator," or "Ruler of this World," is the title given to the Devil, not only in the Gospels, but in most of the mystic religions of the time. Finally, there is something like direct proof that the lion-headed figure in Mithraism was actually called Ahriman. Plutarch says that the "Magi" used to sacrifice to Ahriman in a sunless place, and votive inscriptions on altars to the "God Ahriman" (Deo Arimanio), although rare, are known in Mithraism, five of them being given in M. Cumont's book.

The Monuments of Cambodia. — The ninth volume of the publications of the French School of the Far East is the third and last volume of commandant E. Lunet de Lajonquière's work on the monuments of Cambodia. After a general introduction he takes up and describes in turn the ancient remains in the provinces of Siemreap, Sisophon and Battambang, including those in the part of Siam which, previous to the treaty of 1907, had belonged to Sisophon, and a few in Cochin China. The work contains descriptions of the monuments of 910 different sites. A large map showing their location, and another giving the position of the buildings at Angkor, accompany the book. [Inventaire des monuments du Cambodge. Par E. Lunet de Lajonquière. III. Paris, 1911, E. Leroux. 515 pp.;

122 figs.; 2 maps in holder.]

Archaeological Essays. — The sumptuous volume entitled $\Pi POE\Delta P\Omega$ ΔΩΡΟΝ, which was presented to Count A. Bobrinsky in the autumn of 1911, at the conclusion of his twenty-fifth year as president of the Russian Imperial Archaeological Commission, is briefly summarized in German by E. v. Stern, in Arch. Anz. 1912, cols. 147-153. It contains the following articles: N. Wesselowsky on Chinese symbolic ornament on objects found in eastern and southern Russia; E. v. Stern on child-life on the northern coast of the Black Sea (from the toys found in children's graves); W. Scorpil on the archonship of Hygiaenus of the Bosphorus (third century B.C.); B. Pharmakowsky on the two gold reliefs (goruti) with scenes from the story of Achilles, found in the kurgans of Chertomlik and Ilyintzui (second century B.C.); M. Rostowst on the painted catacombs of Kertch, discovered in 1891 (existence of an Eleusinian cult in this region and in Thrace in the fourth and third centuries B.C., with a native Thracian chthonic pair who are wrongly called Sarapis and Isis because they wear the headdress, that was later adopted for Sarapis; influence of Orphic Mysteries on the Eleusinian in Kertch in early Christian times); A. Spizin on the Hallstatt culture among the Scythians; W. Latyshev on the history of Christianity in the Caucasus (from inscriptions of the tenth and eleventh centuries); D. Milejew, K. Romanow and P. Pokruishkin on topics of Christian art in Russia; A. Markow on a hoard of German silver pennies of the eleventh century, found in the government of St. Petersburg (from many different German states and the Anglo-Saxon Knut, coming into Russia by way of Poland); N. Buitluitshkow on two fifteenth century coins of Nidji-Novgorod; R. Loeper on the twelve original cities of Attica and their synoikismos: T. Braun on a Runic inscription of the eleventh century which refers to the river Dnieper.

EGYPT

Egypt and Megalithic Monuments. — In B.S.A. XVII, session of 1910–1911, pp. 250–263, T. Eric Peet discusses the theory of Dr. G. Elliot Smith (The Ancient Egyptians and their Influence upon the Civilization of Europe, Harper and Brothers, 1911) that megalithic monuments are due to Egyptian influence. No Egyptian influence is conclusively proved even in Crete before the eleventh dynasty. Elsewhere it is not proved until later. Megalithic monuments are characterized by upright stones, Egyptian buildings by horizontal layers of stones. No megalithic monuments are known in Egypt proper. Other arguments also are advanced to overthrow Dr. Smith's theory.

Charters of Exemption in the old Egyptian Empire.—In J. Asiat. XX, 1912, pp. 73–114, A. Montet discusses a number of documents that have lately been discovered in Egypt containing original copies on stone of charters issued by kings extending from the fifth to the tenth dynasty. These contain exemptions from taxation and other demands granted to various sacerdotal or funerary estates.

The Girdle of Rameses III.—In Ann. Arch. Anth. V, 1912, pp. 84-96 (pl.; 10 figs.), T. D. Lee discusses in detail the girdle of Rameses III for many years preserved in the Liverpool museum. With the exception of some fragments of tapestry found in the tomb of Thothmes IV it is the oldest known example of a woven pattern. It is 17 feet long and tapers from 5 to 1½ inches in width. The cartouche of the king is written in black ink about a foot from the wide end. It is of linen woven in five colors, blue, red, yellow, green, and the natural color of the linen. It is remarkably well preserved.

The Egyptian Mastaba Graves.—In Z. Morgenl. Ges. LXVI, 1912, pp. 271-274, S. Krauss shows that the peculiar type of grave known as the mastaba derives much illumination from the references of the Talmud to mastabas and to similar constructions in tombs, temples, and houses.

The Funeral Statuettes of the Ancient Egyptians. - In S. Bibl. Arch. XXXIV, 1912, pp. 146-151, 179, E. MAHLER states that the meaning of the small funeral statuettes, many examples of which are to be found in every Egyptian collection, and were called by the ancient Egyptians "Ushabti," has been frequently discussed. The generally accepted opinion is that these figures represent servants or slaves of the deceased who would in the other world perform the menial labor allotted to him. Almost every one agreed with the supposition that the Egyptian word $\hat{w}s\hat{b}$ -ti, which designates these statuettes, is derived from the word wsb, "answer," and that it means the "answerer," the "respondent." We know the word wsb, "eat," or "nourish oneself," and from this verb wšb, "eat," or "nourish oneself," could have been derived the substantive wšb-ti, which is used as the appellation of the funeral statuettes. The task of these small statuettes - which were nothing else than portraits of the deceased, and therefore bore his name was to do the field work which was necessary for providing the victuals. (See also P. PIERRET, ibid. p. 247.)

The Ka of the Egyptians.—In Mennon, VI, 1912, pp. 125-146, G. Maspero maintains that the recent attempts to show that the ka was a genius who accompanied a man in life and in death is not so correct as the older view that it was the double or shade of the man.

Demotic Horoscopes.—In S. Bibl. Arch. XXXIV, 1912, pp. 227–233 (pl.), H. Thompson gives reproductions of two fragmentary demotic horoscopes written on ostraca. It would be more accurate to call them "elements for casting a nativity," since they are mere statements of the positions of the "heavenly houses" in relation to the zodiac and the planets, and no conclusions are drawn as to the destiny of the "native." A comparison of them with the three Strassburg examples enables us to determine with certainty the meaning of a number of hitherto rather obscure demotic terms.

Traces of Babylonian Script in Egypt. — In Mitt. Vorderas. Ges. XVII, 1912, pp. 237–326, W. M. MÜLLER shows that knowledge of the Babylonian cuneiform writing reached the Egyptians at a very early date, and that it was the origin of the so-called syllabic method of writing in Egyptian. The antiquity of this system suggests Babylonian influence in Egypt as early as the fourth or the fifth dynasty.

Greek Inscriptions from Egypt. — In Klio, XII, 1912, pp. 365–376, W. Schubart publishes two Greek inscriptions from Egypt now in Braunsberg. In one a certain Theogenes sets up a slab in honor of his father in the sanctuary of Harbaethus. Both father and son were $\pi\rho\hat{\omega}\tau o\iota$ $\phi i\lambda o\iota$, a name given to persons who had rendered some special service to the court. The second inscription dates from late Ptolemaic times, and points to a temple of Osiris in Theadelphia.

BABYLONIA, ASSYRIA, AND PERSIA

The Newly Discovered List of Old Babylonian Kings.—In Z. Morgenl. LXVI, 1912, pp. 143-162, F. Hrozný discusses the tablet recently published by Scheil (see A.J.A. XVI, p. 437) which contains in chronological order a list of the early kings of Babylonia, and gives us the names of two previously unknown dynasties and of not less than twenty-five new kings. (See also A. POEBEL, Or. Lit. XV, 1912, cols. 290-294.)

Early Babylonian History.—In Sitzb. Berl. Akad. 1912, pp. 1062–1108 (No. xlvii), E. Meyer discusses various points of early Babylonian history in the light of recent discoveries. King's list of early kings is confirmed (Semitic kings of Kiš: Enbištar, XX, Sarrugi, i.e. Sargon I, Maništusu, Urumuš; Sumerian king of Uruk: Lugalzaggisi; Semitic kings of Uruk: 1, Šarganišarri I, i.e. Sargon II, 2, Naramsin, 3, 4, perhaps Binganišarri? 5, Šarganišarri II, i.e. Sargon III). Sargon II is dated about 2775 B.C. Gudea of Lagaš reigned about 100 years later than Naramsin, son of Sargon II. Lugal-šag-engur of Lagaš and Mesilim, the earliest Sumerian king of Kiš, ruled about 3100 B.C., Urnina of Lagas about 3000, Eannatum, the king of the "vulture stele," about 2950, and Lugalzaggisi about 2800–2775. The dynasties of Kiš and Opis, the wars of Eannatum of Lagash, the positions of Kiš, and Opis, and Nebuchadnezzar's fortification of Babylon are discussed. Opis was on the Tigris near the mouth of the Adem; Kiš was at Tell Oheimir, east of Babylon. These are only some of the conclusions reached.

Astronomy and the Early Sumerian Calendar. — In S. Bibl. Arch. XXXIV, 1912, pp. 248–256 (pl.), S. H. Langdon shows that in attempting to interpret the Sumerian calendar in terms of the Gregorian calendar, we

have hitherto been reduced to resort to the meanings of the names and to apply them to stages in the agricultural year. Naturally the rising of a fixed star would be an event much more regular than the seasons for harvesting, storing grain, etc. and eminently suited for regulating the months. One evident example of this sort is known, namely, Nikolski No. 2, "month when the star b arsag sets," and is here apparently the sixth month, August. This is of immense importance, for it proves that the observation cannot possibly go back to 4000 B.c. and that Lugalanda must be placed later than 3000, thus proving the impossibility of dating Sargon (who ruled after Lugalanda) at 3800.

Intercalary Months in Ancient Babylonia. —In Memnon, VI, 1912, pp. 65-75, E. Weidner shows that in the earliest period of Bubylonian history the intercalary months were inserted in accordance with a cycle of 38 or 76 years, but in the period of the first dynasty of Babylon there was a cycle of 21 years.

The Primitive Zodiac.—In Memnon, VI, 1912, pp. 147-176 (4 pls.), F. Röck claims that the zodiac with 8 divisions which is found in Java and in other parts of the world is older than the Babylonian form of the zodiac with twelve signs. Originally eight animals formed the constellations, and the other four constellations Virgo, Libra, Arcitenens, Aquarius are later divisions.

Some Lunar Eclipses. — In S. Bibl. Arch. XXXIV, 1912, pp. 205–211, 239–248, E. Wesson states that the only observations recorded by the Babylonians, which still retain interest for astronomers, are their lunar eclipses. Ten of these preserved in the Almagest form the admitted starting-points in the history of the moon's motions. Until our own times the only records of the Babylonian observations were contained in Greek manuscripts, many centuries later in date; but since the cuneiform tablets have been unearthed and read, it is possible to know these matters at first hand. He then discusses all of the known Babylonian lunar eclipses and attempts to determine their probable dates.

Pliny and Babylonian Astrologers.—In C. R. Acad. Insc. 1912, pp. 497–505, L. Heuzer discusses a passage in Pliny (N. H. VI, 30, 6) in which in describing Mesopotamia he mentions Notitae et Orthophantae et Graeciochantae. Notitae he believes were astrologers who were accustomed to turn to the south in determining the points of the compass (cf. N. H. XVIII, 76). The second name he would emend to Orthrophantae and explain as astrologers who based their calculations on the place where the sun rose. The third name is corrupt. It may have been Graphiophantae, but perhaps conceals some eastern word.

The Originals of Two Religious Texts of the Ašurbanipal Library. — In S. Bibl. Arch. XXXIV, 1912, pp. 152–157, S. H. Langdon claims that the originals of the great Ninevite Library are undoubtably from the period of the Ur, Isin, Larsa, and Babylonian dynasties, before 2000 B.C., and identifies two important texts with late copies, one from Nippur, apparently of the period of Hammurabi, and one from Telloh, much earlier, perhaps going back to the age of Gudea.

The Scape-goat in Babylonian Religion.—In Exp. Times, XXIV, 1912, pp. 9-13, S. H. Langdon asserts that no certain traces of the scape-goat condemned to bear the sins of a people can be detected in the many cere-

monies of purification and atonement extant in Babylonian religion. We have to do here invariably with the atonement of individuals; and so far as our sources give us clear evidence, only with a scape-goat which is slain, and whose members, having been placed upon the corresponding members of the sinner, are said to take upon themselves the evil spirit abiding in the man. The curse of the consecrated priest, the mystic acts, and the holy words in the name of the god of Eridu cast out the demons, who escape into the dismembered goat, which is then thrown away in a desolate place. If we may employ the word scape-goat in this sense, then this form of atonement is richly represented in Babylonian religion.

Ishtar's Descent. — In Memnon, VI, 1912, pp. 177-190, H. H. FIGULLA discusses the difficult lines 51-58 on the obverse of the tablet that describes Ishtar's descent to the under world, and holds that they belong between lines 25 and 29 of the obverse. On this interpretation Ereshkigal, the queen of the under world, at first refuses to let Ishtar go, but subsequently, influenced

by the flute of Tammuz, grants the request.

Museum. 32 pp.; 72 pls.; fig.]

A Cylinder Seal of the Hammurabi Period.—In S. Bibl. Arch. XXXIV, 1912, pp. 158-159 (fig.), S. H. Langdon describes a seal which belongs to Mrs. Butler Ievers, of Dublin. It is of considerable interest to students of Babylonian glyptic art, both for its beautiful workmanship and for its contribution to the subject. Specialists will at once recognize the characteristics of the designs of the Hammurabi period. The inscription reads "Ibrubani son of Erikamatkum servant of the god Lugalamarda."

The Code of Hammurabi at Nippur. — In C. R. Acad. Insc. 1912, pp. 159–160, Father Scheil reports that S. Langdon has found in Constantinople among the tablets from Nippur one which contains §§145–180 of the code of Hammurabi, omitting §147. It has the statement that it is the "fourth great tablet of the text Inu Anum şîruma." The tablet is contemporary with Hammurabi.

Tablets of the Cassite Period. — Professor Clay adds to the list of documents dated in the time of the Cassite kings by the publication of 144 tablets from Nippur now in the University of Pennsylvania Museum. A brief introduction and an index of proper names accompany the texts. A full discussion of the names, as well as a translation of selected tablets, is promised. [Documents from the Temple Archives of Nippur dated in the Reigns of Cassite Rulers, By Albert T. Clay. Philadelphia, 1912, University

Babylonian Tags and Labels. — In the Museum Journal of the University of Pennsylvania III, 1912, pp. 29-31 (fig.), C. E. Keiser points out that Babylonian labels are of two kinds, one to put on temple revenues in kind, and the other to tag live stock. The former were lumps of clay pressed on the knot of the cord tying the object, and usually inscribed with the name of the article, the sender, the receiver, and the date; although sometimes the receipt or delivery of the goods and the date were alone recorded. Almost all have an impression of the scribe's seal. The second kind is triangular or shield-shaped and flat, with a hole in each corner, but no seal impression. These usually have the name of the animal and the man to whom it was entrusted. The tags from Nippur are chiefly animal tags dating from the first dynasty of Babylon, although there are some of other periods.

Business Documents in the Reign of Darius II. - Professor CLAY

continues the publication of the tablets excavated by the University of Pennsylvania expedition at Nippur with a volume of 228 business documents of the firm of Murashu Sons dated in the reign of Darius II. This completes the series of tablets of that reign in Philadelphia and in Constantinople; but there still remain to be published about two-thirds as many dated in the reign of Artaxerxes I. The volume contains lists of proper names, and descriptions of the tablets, as well as a transcription. [Business Documents of Murashu Sons of Nippur dated in the Reign of Darius II. By Albert T. Clay. Philadelphia, 1912, University Museum. 54 pp.; 123 pls.]

The Correspondence of Belibni. — In Mitt. Vorderas. Ges. XVII, 1912, pp. 1–104, H. H. Figulla publishes in chronological order the letters of Belibni, the general of Ashurbanipal, and the responses of the king in transcription and translation from the cuneiform originals published by Harper, Winckler, S. A. Smith, and C. Johnston. These contain many valuable contributions to our knowledge of the period of the later Assyrian Empire.

The Weights of the Ancient Orient. — In Z. Morgenl. Ges. LXVI, 1912, pp. 607-696, C. F. Lehmann-Haupt defends, against the attack of Weissbach in Z. Morgenl. Ges. LXV, pp. 625 ff., his view that there were two systems of weights in use in ancient Babylon and throughout the Orient, namely, the common standard and the heavier royal standard.

An Early Babylonian Weight. — In C. R. Acad. Insc. 1912, pp. 478-480 (fig.), Father Scheil publishes a Babylonian weight of the time of Urukagina, about 2800 B.c., recently acquired by him. It is shaped like an olive and weighed 15 shekels. It shows a weight of 477 gr. 20 for the mina. It is the oldest Babylonian weight known.

Armor in the Time of Naramsin.—In C. R. Acad. Insc. 1912, pp. 296–301, Father Scheil discusses a tablet from Susa treating of armor in the time of Naramsin, 2800 B.C. Three kinds of helmets are mentioned, of leather, of bronze, and of silver. The last was probably of bronze silvered. A single ox skin was allowed for each leather helmet which when finished weighed about 900 grammes. The bronze helmet weighed about 1 kil. 042. The DAnagar was an axe attached to a handle and might be ornamented with silver; while the qaštu was the bow, sometimes inlaid with gold or silver. The tablet gives other details as to the amounts of material required for quivers, lances, and garments.

The Manichaean Script and the Nippur Bowls. — In the Museum Journal of the University of Pennsylvania, III, 1912, pp. 25–29, J. A. Montgomery calls attention to the written characters on the incantation bowls from Nippur in the University Museum. These bowls are not later than the seventh century A.D., and have inscriptions in three Aramaic dialects each in its own script. The Manichaean texts recently found in Chinese Turkestan have a form of writing which is almost the same. The writer concludes that this script was in use in Babylonia in the time of Mani (third century A.D.), that it was employed by him, and ultimately became a sectarian script.

An Aramaic Version of the Inscription of Darius I at Behistun. — In R. Sém. XX, 1912, pp. 164–177, 252–263, J. Halevy publishes the newly discovered fragments of a papyrus from Elephantine which contained an Aramaic version of the edict of Darius I carved upon the rock at Behistun. (See also E. Meyer, R. Sém. XX, pp. 178–184.) In Proceedings of the

American Philological Association, XLII, 1912, pp. 50-54, H. C. Tolman shows that this is a translation from a Babylonian version, not from the original Persian.

SYRIA AND PALESTINE

The Names of Jerusalem. — In Memnon, VI, 1912, pp. 88-124, H. VINCENT discusses the various names that have been applied to Jerusalem. The most probable etymology of Jerusalem is from Yarah and Shalem, so that it means "foundation of Shalem."

The Conquest of Canaan by the Hebrews and the Israelites. — In Z. Morgenl. Ges. LXVI, 1912, pp. 365–388, H. Weinheimer maintains that the Hebrews are distinguished from the Israelites both in the Old Testament and in the Egyptian inscriptions, and that the invasion of Canaan by the Hebrews is to be identified with the conquest by the Habiru in the Amarna letters, while the settlement of the Israelites did not occur until two centuries later.

Cenotaphs of the Hebrew Patriarchs at the Cave of Machpelah. — The Mohammedans consider Hebron one of their most sacred cities, and the cenotaphs within the Mosque there as of the utmost sanctity, and have prohibited all access to them by Jews and Christians. Extremely few, therefore, have entered the Mosque, and it need hardly be said, that not one of them took photographs of the monuments, nor even dared to ask permission to do so. But even this has now been accomplished, and by the indefatigable exertions of the editor of the Northern British-Israel Review, a set of six photographs of the Patriarchal Monuments was secured for that journal (January, 1911). These are published and described in Pal. Ex. Fund, July, 1912, pp. 145–150 (6 pls.) by A. B. GRIMALDI.

The Khazneh at Petra. — In the Annual of Pal. Ex. Fund for 1911, pp. 95-107 (3 pls.; fig.), G. Dalman describes the Khazneh or "Treasury," at Petra in the light of the exact measurements recently obtained by D. Mackenzie. A ladder in four sections was carried to Petra, and, by means of this, access was gained to the top of the monument and exact measurements of all its architectural details were obtained.

Weights of Ancient Palestine. — In Pal. Ex. Fund, July, 1912, pp. 136-144, 178-195 (6 figs.), E. J. PILCHER holds that there were five standards of weight in use at various times in Palestine: the Phoenician, the Assyrian, the Persian, the Egyptian, the Philippic silver standard. He attempts from existing weights to determine the average value of each of the units in these systems.

Heracles and Astronoe in an Inscription from Tyre.—In R. Hist. Rel. LXIII, 1911, pp. 331-339, R. Dussaud publishes a Greek inscription from Tyre now in the Louvre in which Heracles and Astronoe are mentioned. This is the first time that the name of Heracles has been found in a Tyrian text. Astronoe, known elsewhere only in Damascius (Phot. Bibl. 242, p. 352, ed. Bekker), is to be identified with Astarte.

Coins of the Seleucid Kings of Syria. — EDGAR ROGERS describes and pictures in *Num. Chron.* 1912, pp. 237–264 (3 pls.), some thirty-eight coins of the Seleucid kings of Syria from his own collection, embracing some new varieties and corrected assignments.

ASIA MINOR

The Solution of the Hittite Problem. — In S. Bibl. Arch. XXXIV. 1912, pp. 217-228, A. H. SAYCE claims that the Hittites of Kas, to whom the main part of the hieroglyphic texts belong, are not to be identified with the Hittites who founded the empire north of Halys. Their seat was in Cappadocia, south of the Halys, and they must, therefore, be the Kusâ of the Assyrians who occupied the same region. Their empire, which is shown by the hieroglyphic texts to have extended from Carchemish in the east to Lydia in the west, and from Gurun in the north, southward to the Mediterranean, appears to have followed that of Boghazkeui, after the latter was destroyed, probably by the "Northern" barbarians of Rameses III. Upon its ruins will have risen the Kasian power, which will be the empire of Cilicia described by Solinus. Artemon, the conqueror of Hamath, will have lived about 1180 B.C., and either he or his immediate successor will have been the Cushan Rish'athaim of the Old Testament. This gives us a date for the earlier Hittite inscriptions. Another date is given by the Aleppo inscription, if, as seems probable, the Katu, or rather Katê, to whom it belongs is the same as the Katê, king of Quê, of the Assyrian records.

The Zeus Stratos of Labranda. — In Mon. Piot, XVIII, 1910, pp. 145–175 (10 figs.), P. Foucart publishes a marble relief 0.28 m. high and 0.43 m. wide found at Tegea in 1868. The lower part is broken off. In the middle stands a bearded Zeus holding a double axe over his right shoulder and in his left hand a spear which rests on the ground. His body is draped from above the waist, and he wears a necklace, but on his chest appear six female breasts arranged in a triangle. At the right and left are a male and a female worshipper, Idrieus and Ada, the brother and sister, as well as successors, of Mausolus. All three figures have their names written above them. The relief is dated between 351 and 344 B.C. The god is the Zeus Stratos of Labranda who appears with female breasts on other monuments. He was probably a god of Hittite origin and his cult extended to Crete. The writer discusses other deities with bisexual attributes, especially the bearded Aphrodite. The relief was probably dedicated at Tegea by one of the workmen who went to Caria with Scopas to work on the Mausoleum.

A Phallobates.—A small bronze figure in the Stuttgart museum, representing a crouching, hump-backed man, with shaven head and holding a piece of rope in his hands, which was called a Nubian slave by L. Mayer (Arch. Anz. 1890, col. 97), is identified by R. Hartmann (Arch. Anz. 1912, cols. 13–16; fig.), with the phallobates of Hierapolis, described by Lucian (de Dea Syria, 28, 29) as a man who climbed upon one of the phallic pillars before the temple of Atargatis and offered prayers on behalf of votaries who brought him gifts. The method of ascending by means of a rope slung around the pillar is similar to that still used in this region for climbing the date palm. His view is opposed by H. Dragendorff.

A New King of Galatia. — In C. R. Acad. Insc. 1912, pp. 493–495, Seymour de Ricci points out that a coin acquired by the Berlin museum in 1906 proves that the poorer copy in the British Museum was wrongly assigned to Cius (see Pontus, p. 132, No. 27). The inscription on it reads Βίτοριξ (or Βίτοκιξ) ἀργυ[ρ] σταμίας ἔτους ιέ. He argues that the name is that of an unknown king of Galatia.

The Scamander Valley. — In B.S.A. XVII, session of 1910-1911,

pp. 266-283 (pl.; 4 figs.), Walter Leaf begins a discussion of the topography and monuments of the valley of the Scamander. The plain of Troy is not discussed. The Samonian Plain was just north of the broken country that lay in a direct line between Neandria and Alexandria Troas. Birytus lay certainly near Bairamich, in the middle basin of the Scamander. Scepsis was on the high hill of the Kurshunlu Tepe; Palaeoscepsis was probably 160 (not 60; $\rho \xi'$, not ξ' in Strabo, XIII, i, 52) stadia from Scepsis, beyond Cotylus, in the valley of the Aesepus. It must have been abandoned early.

Dascylium. — The difficulty of identifying the Δασκολίτις λίμνη of the ancients with Lake Manyas, nearly south of Cyzicus, and the Dascylium from which it was named with the village of Daskeli on the coast eastward of the mouth of the Rhyndacus, has been attacked afresh by J. A. R. Munro, with arguments from Strabo and with the new evidence of the Hellenica Oxyrhyncha. The former identification is right, the latter wrong; for there were five Dascyliums, of which the modern Daskeli represents the Bithynian, while the one concerned with the history of Agesilaus's campaign in this region in 395 B.C., the stronghold where Pharnabazus kept his treasure, is to be sought at some naturally defended point near the east side of the lake, probably at Top Hissar, where two streams meet. Interesting remains of sculpture, with Persian costumes and in a style suggestive of Lycian art, have been found in the neighborhood. (J.H.S. XXXI, 1912, pp. 57-67; 2 figs.)

The Homonoia Coins of Hierapolis in Phrygia. — In J. Int. Arch. Num. XIV, 1912, pp. 65-112 (2 pls.), L. Weber publishes a study of the so-called "Homonoia" coins of Hierapolis in Phrygia. After describing the different specimens he discusses their date, the place where they were struck, and their types, as well as the significance of the union, and gives a list of the differ-

Electrum Coinage of Cyzicus. — The seventh issue of Nomisma (1912, 38 pp.; 6 pls.; 2 figs.) is devoted entirely to a full systematic discussion by H. VON FRITZE of the electrum coinage of Cyzicus, very richly illustrated.

GREECE

ARCHITECTURE

The Hypaethral Temple. — In R. Arch. XX, 1912, pp. 143-158, R. DE LAUNAY concludes his discussion of the hypaethral temple (ibid. XIX, 1912, pp. 365 ff.; A.J.A. XVI, 1912, p. 572). The following temples were not hypaethral: Temple of Zeus at Olympia, Parthenon, temple at Aegina, great hexastyle at Paestum, temple at Bassae, Heraeum at Olympia, temple of Heracles at Acragas, Didymaeum, Artemisium at Ephesus, temple at Delphi, temple at Eleusis. The following were hypaethral: Temple G at Selinus, great temple at Acragas, Olympieum at Athens, temples at Comana Pontica and Zela. The Heraeum at Samos is uncertain.

Greek Round Buildings. - The Tholos at Epidaurus and other circular buildings in Greece were discussed, and H. Thiersch's theory of their use as music halls was combated by E. R. Fiechter, with the approval of others, at the June (1910) meeting of the Berlin Archaeological Society. The archaic round building at Delphi, the remains of which were found in the substructure of the Sicyonian treasury, is the earliest of such structures known to us on Greek soil. (Arch. Anz. 1912, cols. 17-20.)

The Abaton at Epidaurus. — At the May (1912) meeting of the Berlin Archaeological Society, A. FRICKENHAUS spoke on the Abaton at Epidaurus, opposing the identification with the Tholos, made by the American architect Elderkin (A.J.A. 1911, p. 161), and with the large hall north of the Tholos, by Cavvadias ($\Pi \rho \alpha \kappa \tau \iota \kappa \acute{\alpha}$, 1905, p. 85). He finds it rather in the building with a court and long corridors, southeast of the temple of Asclepius, on the site of the early altar of sacrifice, which was published by Cavvadias in $\Pi \rho \alpha \kappa \tau \iota \kappa \acute{\alpha}$, 1905, p. 51. He traces its Greek form, of the fourth century, and the Roman alterations. The paper was discussed by others. (Arch. Anz. 1912, cols. 140–142.)

The Development of the Metope.—In Jb. Kl. Alt. XXIX, 1912, pp. 612-644 (4 pls.); pp. 671-692 (pl.), B. Laum discusses the origin and development of the metope. The principle goes back to neolithic art and may be seen in certain vases with incised decoration from the second city at Troy. He finds it also in geometric vases and in designs on plates of bronze (cf. Olympia, IV, Taf. XXXIX, No. 699 a). Metopes on temples in the sixth century B.C. might have mythological scenes, or merely decorative figures. At first the metopes had no necessary connection, but on the Treasury of the Athenians at Delphi the north and east sides were decorated with the labors of Heracles, and the south and west with the exploits of Theseus. From this time on different scenes from the same story were depicted on a series of metopes. The highest development was reached in the metopes of the Parthenon, the grouping of which is discussed, as are the metopes of the temple of Zeus at Olympia, and of the so-called Theseum.

SCULPTURE



FIGURE 1. - GORGON FROM CORFU.

The Archaic Sculptures of **Corfu.** — In Πρακτικά for 1911, pp. 164-204 (20 figs.), Ph. Versakes describes the discovery of the archaic pediment sculptures near the monastery of the Holy Theodori on the island of Corfu in 1911 (A.J.A. XV, p. 415). The foundations of the temple alone remain; the other parts were apparently used in building a retaining wall of the monastery. The sculptures which belonged to the west pediment probably fell from their positions at an early date and thus escaped discovery. Illustrations of all the figures are given (see Figs. 1 and 2). The writer points out that there are traces of red and yellow paint on Medusa's dress.

The Sculptures of Aegina and Phigaleia. — In R. Ét. Gr. XXV, 1912, pp. 158–208, É. MICHON dis-

cusses the acquisition of the Aegina pediment groups by Prince Louis of Bavaria and publishes a number of documents showing the attempts of

Fauvel to purchase them for France. *Ibid.* pp. 401–426, he publishes similar documents in reference to the frieze of the temple at Phigaleia.

Myron's Athena and Marsyas. - Various suggestions for the reconstruction of the Athena and Marsyas of Myron, called forth by the discovery of a puntello on the right side of the Athena, were published in 1912, by J. SIEVEKING (Arch. Anz. 1912, cols. 1-10; fig.); G. MATTHIAS (ibid. cols. 10-12); E. Petersen (ibid. cols. 111-114); and comments by H. Dragendorff (ibid. col. 144); and H. Bulle (Jb. Arch. I. XXVII, 1912, pp. 175-199; 23 figs.). The first and last of these are full of reconstructions. king, disregarding Pausanias's παίovoa, would have the goddess holding in her lowered hands the two flutes, just taken from her mouth and about to be cast upon the ground. Bulle keeps to the old idea of a lance in the right hand with the pipes lying on the ground, and shows by an elaborate study of the fragments of this arm that some of the dowelholes, etc. belong to an original



FIGURE 2. — ARCHAIC FIGURE FROM CORFU.

piecing of the marble, others, including the puntello, to ancient repairing of fractures. He finds that the composition, as restored from a technical study of the parts with the help of the coin copies and the Finlay crater, falls into an exact geometrical scheme such as a great artist would have used; also that this group, with its keen psychological insight into the natures of the two opponents, reveals a much higher aspect of Myron's genius than does the Discobolus.

A Phidian Athena. — In Jb. Arch. I. XXVII, 1912, pp. 88-128 (2 pls.; 33 figs.), A. Preyss gives a detailed study of the two closely related types of Athena represented by the Hope Minerva at Deepdene, England, and the Pallas Albani of Winckelmann, which has remained since the Napoleonic era in the Naples museum under the name of "Farnese." Both these statues are Roman copies, the former perhaps of the Flavian, the latter of the Augustan period, and both are from bronze originals; but the Hope statue, which is the finer both as a copy and in the original, is to be assigned to Phidias himself, the other to a free imitation, with elements derived from some other source, by a pupil or some other close contemporary. The goddess is shown in the traditional festival costume of long

Ionic chiton with sleeves and large double mantle fastened on the right shoulder, a scheme which the sculptor doubtless inherited from an earlier conception. In date, the Phidian work is to be placed after the two peplus statues, Lemnia and Parthenos, and the frieze, but before the Medici torso and the pediment figures, which belong to the master's last style.

Parthenon Studies. — In J. Int. Arch. Num. XIV, 1912, pp. 193-339 (9 pls.; 42 figs.), I. N. Svoronos publishes an elaborate study of the Parthenon pediment groups based largely on coins. He would reconstruct the west pediment with the following figures, beginning at the left: Eridanus, Cycloborus, Cecrops, Pandrosus, Aglaurus, Erysichthon, Herse, Nike Apteros, Apollo Propylaeus, the Eagle of Zeus, the Omphalos of Ge Karpophoros, Athena, Olive-tree with Owl and Serpent, Poseidon, Spring of Poseidon, Artemis Brauronia, Amphitrite, Ge Kourotrophos and Erechthonius, Aphrodite Pandemos and Eros, Peitho, Demeter Chloe, Ilissus, and Callirrhoe; and the east pediment thus; Helios, Aeetes, Circe, Medea, Iris, Core, Dionysus, Hephaestus, Zeus, Nike, Athena, Ares, Poseidon, Hera, Hermes, the Fates, and Night. He also discusses the pediment groups which he believes were made by Alcamenes for the Parthenon in competition with Phidias. He proposes a new interpretation for the figures on the east frieze of the temple of Nike Apteros. The central group represents Zeus seated behind a table deciding between Athena and Poseidon who are in front of him, while the other figures are identified as the more important gods and local divinities. A large room is to be set aside in the Zappeion as a Parthenon museum. Casts of all the sculptures, books, drawings, etc. are to be gathered together to facilitate the study of Parthenon problems.

Three Attic Statues of the Fifth Century. — In Ath. Mitt. XXXVII, 1912, pp. 151-179 (6 pls.; 4 figs.), M. Bieber publishes: (1) A fragmentary torso of a youth from the Acropolis, supporting the hypothesis of Wolters that it is part of the statue to which the well-known blond head of an ephebus belongs. The weight was borne by the right leg as in the figures of Oenomaus, Pelops, and Hippodameia from the east pediment at Olympia. The attitude of the head also resembles that of the Pelops. It is an Attic not an Argive work, showing Ionian influence, and executed shortly before 480 b.c. (2) A life-size marble statue of a seated goddess found near the Acharnian gate and now in the National Museum at Athens. It is a Roman work reproducing faithfully an original of the school of Phidias. Apparently it served as a cultus statue in a small sanctuary of Demeter. (3) A fragmentary seated statue of Hermes from the Acropolis, — an Attic work of the third quarter of the fifth century. The figure decorated a fountain, as is shown by a hole drilled through the rock which serves as a seat.

Micon and Paeonius. — The clinging and transparent "wet" draperies in Greek art, as seen in the Nike of Paeonius, the Nereid frieze of the Xanthus monument, the Venus Genetrix at Athens, and other sculptures and vase paintings, had its origin in the art of wall painting, and belongs to the Thracian school of Northern Greece, of the middle of the fifth century B.C., with Micon, the painter and sculptor, at its head. Reliefs were naturally the intermediary between the paintings and the sculpture in the round. The tendency lasted into the fourth century and was revived in Hellenistic times. (B. Schroeder, at the May (1912) meeting of the Berlin Archaeological Society, Arch. Anz. 1912, cols. 142–143.)

A Statuette of Zeus. — In J.R.S. I, 1911, pp. 64-67 (pl.), S. Reinach publishes a bronze statuette of Zeus, 15 cm. high, found in 1827 and now in the museum at St. Germain. It represents the god standing nude, with himation over his left arm and a thunderbolt in his right hand, and seems to go back to a fifth-century Greek original.

The Gate of Zeus at Thasos.—In R. Arch. XX, 1912, pp. 43-76 (9 figs.), Charles Picard describes the gate at Thasos, which was decorated with the relief published by Mendel (B.C.H. XXIV, 1900, pp. 561 ff.; pls. XIV, XV; cf. Baker-Penoyre, J.H.S. XXIX, 1909, pp. 202 ff.; pl. XIV). Excavations in 1911 showed that the gateway was a nearly square building with two small square guard rooms abutting upon it. The method of construction indicates the end of the fifth century B.C. as its date. The wall was rebuilt in 412-411 B.C. (Thuc. VIII, 64). The relief is attributed to the same date and is explained as Zeus (seated) and Iris (standing). The style is Attic, but with some archaic (perhaps better archaistic) qualities. Several graffiti scratched on the walls of the building are published.

The Artemis Colonna. — Two replicas of the Artemis Colonna at Berlin, one in the Palazzo Corsini in Florence and the other found at Miletus, show that the head of this statue, which has been supposed to be from a later original than the figure, does in reality belong with it. The original statue was a fine, fifth-century, Ionian work, of a character best known in the Nike of Paeonius, and is not related, except by the chance resemblance of the long robe, to the fourth-century, Praxitelian Dresden Artemis. (B. Schroeder, at the November (1910) meeting of the Berlin Archaeological Society, Arch. Anz..1912, cols. 22–23.)

The Demeter, Core, and Iacchus of Praxiteles at Athens.—In 'Aρχ. 'Eφ. 1911, pp. 39-52 (2 pls.; 8 figs.), I. N. SVORONOS identifies the well-known head from Eleusis, generally known as the Eubouleus of Praxiteles, as a copy of the famous Iacchus in the group of Demeter, Core, and Iacchus which Praxiteles made for the temple of Demeter, called the Iaccheum, which stood near the Dipylon (cf. Paus. I, 2, 4). This identification is proved by the combined evidence of a sarcophagus from Torre Nova near Rome (cf. Not. Scav. 1905, pp. 408 ff. and Rh. Mus. 1910, pp. 89 ff.) and other similar reliefs, and of altars in the National Museum at Athens commemorating celebrations of the Taurobolion, all of which contain figures of these Eleusinian deities that can be traced to the group in the Iaccheum. All this evidence is clinched by a series of late Athenian coins which represent the individual members of this group. The head in question may well have been made for the sanctuary at Eleusis by Praxiteles himself, or by one of his pupils.

The Jupiter Orador at Madrid.—In Jb. Arch. I. XXVII, 1912, pp. 199-207 (2 figs.), G. Dehn criticises Klein's attempt to combine the Jupiter Orador with the child's figure in the Museo delle Terme as a Hermes and infant Bacchus. The baby of the Terme is a real child's figure, such as was not made before Hellenistic times, while the statue belongs to an original earlier than Praxiteles. Moreover, the composition needs nothing more to balance the figure of the god than the draped herm which it already has. Incidentally, the head of the Ares Ludovisi, the Nelson head, and other similar types are compared and illustrated.

The Xenocrateia Relief. — The votive relief of Xenocrateia and the

inscription upon its pedestal, published by Staes, 'Aρχ. 'Eφ. 1909, pp. 247 ff. (A.J.A. XIV, pp. 500 ff.), have been discussed and variously interpreted by G. A. Papavasileiou, 'Aρχ. Eφ. 1911, pp. 79–81 (fig.), who publishes a photograph of the inscription; A. Skias, ibid. pp. 209–211; and S. N. Dragoumes, ibid. pp. 214–222. In J. Int. Arch. Num. XIV, 1912, pp. 161–176 (fig.), I. N. Svoronos examines the interpretations proposed by these scholars and by himself, and justifies his own interpretation. Ibid. pp. 191–192, O. Weinreich points out that the word διδασκαλίας in the inscription is the oldest example of the simple genitive in place of the genitive with ξυκα.

The Thracian Horseman. — In R. Ét. Anc. XVI, 1912, pp. 239–261 (7 figs.), S. Seure continues his discussion of the "Thracian Horseman" (see *ibid.* pp. 137 ff.; A.J.A. XVI, p. 575), publishing several reliefs upon which the god is represented, in one case with three heads. He examines his costume and attributes and shows that he was identified or assimilated with various gods, Greek, Roman, and Asiatic. The Thracians did not have one type for this divinity, but represented him in a variety of forms. He was a national god, but not the only one of the Thracians. *Ibid.* pp. 382–390 (fig.), he shows that the "H $\rho\omega$ s $\pi\rho\sigma\pi\nu\lambda\omega$ os on a slab in the Louvre is a variety of the Thracian Horseman; that his statue was regarded as a protection against disease and was often placed over the gates of cities.

The Statues of Damophon at Lycosura. — In J. Int. Arch. Num. XIV, 1912, pp. 45-47 (pl.), V. Staes publishes a bronze coin of Megalopolis found in the excavations at Lycosura upon the reverse of which appears the group of statues carved for the temple by Damophon (see also note by V. Leonardos, ' $A_{\rho\chi}$. ' $E\phi$. 1911, p. 193; A.J.A. XVI, p. 573). The coin shows that the restoration proposed by Dickins (see A.J.A. XIII, pp. 205 f.) needs correction in some details. The coin also proves that the people of Megalopolis had control of the temple. Ibid. p. 48 (3 figs.), I. N. Svoronos argues that Damophon was influenced by the group consisting of Zeus, Megalopolis, and Artemis made by the Athenians, Cephisodotus and Xenophon, for Megalopolis (Paus. VIII, 30, 10). These figures are reproduced individually on three coins of imperial date of which he gives illustrations. This was a common practice because the small field on the coin did not permit the representation of a large group. In B.S.A. XVII, session of 1910-1911, pp. 80-87 (6 figs.), Guy Dickins points out that the coin appears to show that Anytus's right hand rests on a shield, not on his hips; but the position of the dog can hardly be settled on the evidence of the coin. The fragments of the sculptures show that the coin is at fault in giving Demeter's left arm a horizontal position, though it is probably right in giving Demeter a short torch. other respects the writer's restoration is substantially correct.

Greek and Roman Reliefs. — The third volume of S. Reinach's Répertoire de Reliefs grees et romains contains the reliefs in Italy, Luxemburg, Portugal, Russia, Sweden, and Switzerland. A few additional reliefs in Germany, Alsace, Asia Minor, the United States, France, Greece, and the British Isles form a supplement of seven pages. A general index for the three volumes is added. It will be remembered that Vol. I contained "Les Ensembles" and Vol. II, "Afrique — Isles Britanniques." With Vol. III this collection of sketches of the known Greek and Roman reliefs is completed. [S. Reinach, Répertoire des Reliefs grees et romains, tome troisième.

Italie — Suisse. Paris, 1912, Ernest Leroux. 566 pp.; about 2000 figs. 8vo. 10 fr.]

The Hecate Relief from Delos. — In Mon. Piot, XVIII, 1910, pp. 19-35 (pl.; 2 figs.), F. Courby discusses the bronze relief from Delos representing Hecate and two satyrs about to perform a sacrifice (A.J.A. XIV, p. 107). It dates from the third century and probably served to decorate the κρήνη Μινόη. In the Brunn-Bruckmann Denkmäler text to pl. 621, J. Sieveking interprets it as a Bacchic sacrifice.

Pergamene Art. — The resemblance of the art of Pergamon to the Baroque, in origin, in character, and in relation to an earlier classic art was pointed out by A. Salis at the December (1911) meeting of the Berlin Archaeological Society. Numerous scenes, groups, and single figures from the art of the fifth and fourth centuries were deliberately copied in the friezes of the Great Altar. The art of Rhodes is now seen to have been the intermediary between Attic and Pergamene art, and the architect of the Altar was himself, apparently, a Rhodian, Menecrates. (Arch. Anz. 1912, cols. 65–67.)

The Gauls in Alexandrian Art. — In Mon. Piot, XVIII, 1910, pp. 37-115 (3 pls.; 35 figs.), A.-J. REINACH discusses the Gauls in Alexandrian art.

The Chigi Relief of the Muses. — A panel from the front of a small sarcophagus, in the Villa Cetinale near Siena, is newly published and discussed by H. Duetschke in Jb. Arch. I. XXVII, 1912, pp. 129–145 (10 figs.). The relief contains thirteen figures, in three groups, in each of which one person is seated, and several of them have musical instruments. It is here interpreted as the welcoming to the after-world, by Orpheus and the Muses, of a young girl, the central seated figure, who has been brought by Hermes, while her aged parents, seated at either end, are consoled by others. The Greek conception of the after-life, in its various stages, its connection with the chthonic mysteries, and the function of a grave monument, are discussed and illustrated by other works of sculpture and painting. This rare work, in which figure types of the fifth and fourth centuries appear but in a less simple arrangement than would be found in the time of Praxiteles, is assigned to the Hellenistic period, — a link between Greek and Roman sepulchral art.

The Chigi Athena at Dresden. - A study of the Chigi Athena at Dresden, by D. J. Finn, is devoted chiefly to the vertical band of metopelike reliefs of the Gigantomachy which runs down the front of the garment. Such a scheme of decoration was not unknown in early times, as the Argive-Corinthian bronze stripes attest, but it was abandoned by the finer aesthetic sense of the classic period for the continuous horizontal band of ornament, whether conventional patterns or scenes of life, and was only revived in a time of degenerate taste which preferred the story-telling character of such a legend cycle. This second use can be traced from about 150 B.C. to 200 A.D. or later; and this statue, in its main features copied from some genuine archaic figure, may be placed rather near the beginning of that period. On the whole, archaistic figures of this class may be regarded as genuine attempts to reproduce the archaic. The vertical band of embroidery without a corresponding border around the garment belongs properly to the Doric peplus, not to the Panathenaic peplus which is here imitated. (J.H.S. XXXII, 1912, pp. 43-56; pl.; fig.)

A Marble Relief in the Louvre. — In Mon. Piot, XVIII, 1910, pp. 177–182 (pl.), E. Michon publishes a marble relief, 0.77 m. high and 1.02 m. long recently acquired by the Louvre. It came from Rome and represents three women dancing. It is neo-Attic in style.

VASES AND PAINTING

Some Sources of Cretan-Mycenaean Ceramic Art. — A brief analysis of Cretan-Mycenaean decorative systems as they existed during the second flowering of that culture (M.M. III, L.M. I-III) was given by G. Rodenwaldt at the June (1912) meeting of the Berlin Archaeological Society. Recent discoveries have added wall decoration and textile patterns, as seen in the costumes of figures on the walls, to the once exclusively ceramic material for this study. The walls were constructively divided into a solid base and friezes above, divided horizontally by exposed timbers; and their decoration accordingly consisted of naturalistic pictures from the plant and animal world in the free spaces, accompanied by strictly conventionalized borders of spirals, leaves, etc. where they joined the beams. This whole system, with the horizontal friezes and the two distinct kinds of ornament, passed over into ceramic art, and there the pictorial element gradually became conventionalized also. Meanwhile textile patterns, from the nature of their production, were all-over designs, - scales, lozenges, zigzags, network, etc. and at the close of the period, these patterns also made their way into vase painting. A final effort at enlivening the latter art was the adoption of the figure-frieze bodily out of the wall painter's province. (Arch. Anz. 1912, cols. 144–146.)

Notes on Proto-Corinthian Fabrics. — In J.H.S. XXXII, 1912, pp. 326–353 (25 figs.), H. L. LORIMER gives an analysis of the distribution and the successive forms and decorative elements that appear and disappear in the vases called proto-Corinthian, with dates often determined by the history of the Sicilian and Italian sites on which they are found. The forms found in the famous tombs at Praeneste, Caere, and Vetulonia may be dated about 680 B.C. The home of the fabric was perhaps Sicyon, almost certainly some place with easy access to the gulf of Corinth. The ware as a whole represents an independent attitude toward foreign influence, experimenting with new ideas but never falling into a slavish use of conventions as did Corinthian.

An Early Attic Vase in New York. — In J.H.S. XXXII, 1912, pp. 370-384 (3 pls.; 3 figs.), Miss G. M. A. RICHTER discusses the early Attic vase recently acquired by the Metropolitan Museum, New York (A.J.A. XVI, pp. 454 f.), and appends a list of early Attic vases.

Panathenaic Amphorae.—A criticism of the views expressed by G. v. Brauchitsch in his Die Panathenaischen Preisamphoren (1910), with some new evidence, especially an amphora at Bologna on which boys are clearly shown as competing and receiving prizes, is presented by E. N. GARDINER in J.H.S. XXXII, 1912, pp. 179–193 (pl.). He shows that although the festival, at least on its athletic side, for various reasons doubtless suffered an eclipse during a large part of the fifth century, there is no ground for the sharp distinction and long gap between an earlier sixthcentury and a later fourth-century group of these vases. Further, that the

number of jars given out was much larger than Brauchitsch supposes, although confined to the fourth-year festival; that the boys' contests were included; and that the archons' names on the jars represent the years in which the oil was collected, not the years of the festivals.

The Master of the Troilus Hydria.—J. D. Beazley, in publishing plates of the red-figured hydria with a picture of Troilus and Polyxena, acquired by the British Museum from the Forman collection, assigns it with eight other vases to an unnamed master of respectable but not remarkable merit, whose best performance is a crater at Copenhagen. He has certain resemblances to Cleophrades, but not such as would indicate an influence from the latter. The nine vases are catalogued, their common traits noted, and the decorative patterns copied. (J.H.S. XXXII, 1912, pp. 171–173; 2 pls.)

The Master of the Boston Pan-Crater. — A red-figured bell-crater, now in the Boston Museum of Fine Arts, named from the goat-headed Pan pursuing a shepherd which forms one of its pictures, is claimed by J. D. Beazley as one of a series of more than forty vases of various shapes, by the same master, otherwise unknown. He catalogues the vases and notes their characteristic traits, chiefly anatomical but including a stylizing of the markings on rocks which is unique. Inscriptions are limited to $\kappa \alpha \lambda \acute{o}s$, twice, and one set of five meaningless letters. The compositions as a whole are marked by "grace, humour, vivacity, originality, and dramatic force," with "nothing noble or majestic." (J.H.S. XXXII, 1912, pp. 356–369; 4 pls.; 8 figs.)

The Telephus Vase in the Hermitage. — An astonishing piece of work of falsification has been discovered by E. Petersen and O. Waldhauer in the calix-crater at St. Petersburg, which is published by Michaelis in Mon. dell' Ist. VI, pl. XXXIV. Only the upper rim and a small part of the two pictures in the upper left-hand corner of each are genuine. The rest of the vase is made up of pieces of an antique, undecorated, black crater and other bits, put together with plaster, and on these all the rest of the existing pictures has been painted and incised, not without some tampering with the ancient paintings. (O. Waldhauer, Arch. Anz. 1912, cols. 104–110; 3 figs.)

Leda and the Swan. — In R. Arch. XX, 1912, pp. 106-123 (2 figs.), Louis Séchan publishes a plastic vase in the Louvre. It is Attic, made not far from 300 B.C. Leda has her right knee bent and resting on a small raised base; her left leg is straight and the foot touches the lower base of the vase. With her right arm she holds the swan at her side. Her drapery, held up and back by her left hand, leaves her body and legs almost entirely bare. A small Eros stands in the background. The composition exhibits in marked degree qualities of rhythm, equilibrium, and variety of pose. The flowing drapery is excellent. The development of plastic vases from the busts of the sixth century to groups is traced. Three groups of Leda vases are distinguished: (1) Leda raises her robe to protect the swan and looks toward the pursuing eagle; (2) the preoccupation with the eagle is less marked; (3) the swan becomes the chief figure in an erotic scene. The Leda of the capitol is the chief monument of the first group, and is probably a copy of a work by Timotheus. To this the vase in the Louvre is related. The influence of Praxiteles is evident. A list of fifty-seven

plastic vases is added (pp. 123-126). They fall into four groups: (1) the cycle of Aphrodite; (2) the cycle of Eros and winged divinities; (3) the

cycle of Dionysus; (4) various representations.

Vases in Göttingen — Συμποσιακά. — The more important vases in the museum of the University of Göttingen are described with numerous illustrations by Paul Jacobsthal, who adds to this partial catalogue a treatise on the representation of symposia by the Greek vase painters. The early painters represented merely parts of symposia — individuals or groups. Not until the fourth century was a symposium represented as a whole from a definite point of view with real perspective. The development from the early, schematic "memory pictures" is traced in some detail. One of the most interesting vases published is a small cylix in the British Museum on which are three scenes of symposia. Two of the persons are singing, and the words of one (scratched as coming from his mouth) appear to be from a παρούνον of Praxilla (Frg. 5, Bergk). [Paul Jacobsthal, Göttingen Vasen, nebst einer Abhandlung Συμποσιακά. Abh. d. Kgl. Gesell. d. Wiss. zu Göttingen, phil. hist. Kl., N. F. Bd. XIV, No. 1. Berlin, 1912, Weidmann. 76 pp.; 22 pls.; 38 figs. 4to. 18 mk.]

"Cyrenaic" Vases of Tarentum. — In R. Arch. XX, 1912, pp. 88–105 (2 figs.), Charles Dugas adds to the list of 103 "Cyrenaic" vases given by Droop (J.H.S. 1910, pp. 33 ff.) six numbers from various places and five from Tarentum. On one fragment the nymph Cyrene struggling with a lion is represented. The question of the place of manufacture of such vases is discussed, and the conclusion is reached that they were made at Cyrene

and also at Sparta. They entered Italy by way of Tarentum.

Greek Ceramics. — In R. Arch. XX, 1912, p. 297, S. R. calls attention to an article by Picard in the Gaz. B.-A. (September, 1912, pp. 248–256), which he considers an excellent treatise on the earlier periods of Greek ceramics.

Skiagraphia. — In Jb. Arch. I. XXVII, 1912, pp. 227–231, E. Pfuhl gives some modifications of his former discussion of skiagraphia (1909) with acknowledgment of his indebtedness to other investigators. He takes the innovation of Apollodorus to have been the treatment of shadows, both in landscape and in figures with landscape background, as made by light coming from a single direction. This, in addition to the linear perspective for the correct rendering of distance, and the modelling of figures by shadows which the earlier fifth-century painters had attained by means of a diffused light, completed the technique which gave painting the power of illusion, and this method was the accepted meaning of σκιαγραφία in the fourth century. It was, naturally, used in scene-painting as well as for panel pictures, and it was probably in the former field that Greek impressionism, the juxtaposition of unblended colors arose, to be adopted later for easel paintings as well.

INSCRIPTIONS

A Greek Ostracon.—In S. Bibl. Arch. XXXIV, 1912, p. 197 (pl.), H. Thompson describes an ostracon in his possession. The contents record two sayings attributed to Diogenes the Cynic. "Diogenes the Cynic philosopher, when questioned by one who saw an Aethiop eating white bread said, "Tis night devouring day." "Diogenes the Cynic philosopher, when asked

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by some one, 'Where do the Muses dwell?' said, 'In the souls of the learned.'"

An Athenian Proxenos Decree. — In Ath. Mitt. XXXVII, 1912, pp. 190–197 (fig.), T. SAUCIUC discusses the decree in honor of Κωμαΐος Θεοδώρου of Abdera, I.G. II, 5, 85 b.

Sosibius, Son of Dioscurides. — In R. Ét. Anc. XIV, 1912, pp. 370–376, M. HOLLEAUX calls attention to an inscription at Delos, the fourth in which Sosibius, son of Dioscurides, of Alexandria, is mentioned, and shows that for about twenty years he held a high position at the court of Euergetes, and that when Philopator came to the throne, he became his principal minister.

A Letter of Hadrian.—In Ath. Mitt. XXXVII, 1912, pp. 183–189 (fig.), T. SAUCIUC publishes an inscription in the museum at Athens. It is a letter of the Emperor Hadrian addressed to the Athenians, announcing his gift to them of a new gymnasium. This is evidently the building referred to by Pausanias (I, 18, 9) which Dörpfeld has recognized in the Roman building excavated by the British school on the southern bank of the Ilissus. Dörpfeld's theory is confirmed by the fact that the inscription was found in close proximity to this building.

A Puzzling Epitaph. — The epitaph beginning O] \vec{v} το $\chi(\rho)$ εων ε $\vec{\iota}\mu(a)\rho\tau a\iota$, published by Dragatses, 'A $\rho\chi$. 'E ϕ . 1910, pp. 73 f., is discussed and variously interpreted, by S. N. Dragoumes, *ibid.* 1911, p. 122; A. N. Skias, pp. 207–209; S. Vases, pp. 211 f.

A Monument of Polybius.—In 'Aρχ. 'Eφ. 1911, pp. 242 f., F. HILLER publishes a small fragment of an inscription, found at Lycosura in 1889, which he restores as part of a list of cities inscribed upon a monument to Polybius, described by Pausanias, VIII, 37, 2.

Πλοιαφεσία. — The dedicatory inscription to Isis and Serapis published in Ath. Mitt. XXXVII, 1912, p. 287, mentions a festival the name of which Wiegand restored as $\Pi \alpha [\nu] \alpha \phi \epsilon \sigma i \alpha$. This is to be corrected to $\Pi \lambda [\omega] \alpha \phi \epsilon \sigma i \alpha$, a festival in honor of Isis described by Apuleius, Met. XI, 16. (L. Deubner, Ath. Mitt. XXXVII, 1912, pp. 180–182.)

Thoinarmostria. — Several inscriptions containing the title Θοιναρμόστρια have been found since the publication of a list in 1905; hence a new list with discussion is given by M. N. Top in J.H.S. XXXII, 1912, pp. 100–104. They are Messenian and Laconian, the latter being all of the Roman imperial epoch, while the former are in some cases of the first or second and perhaps even of the third century B.C. The office seems to have been of some dignity and importance, superior to that of priestess, and was connected with religious festivals, but whether always with those of Demeter, or Demeter and Core, is not certain.

Inscriptions from Thasos.—In R. Ét. Anc. XIV, 1912, pp. 377–381, P. Roussel discusses two inscriptions from Thasos published by Picard in $\Xi \acute{\nu}\iota \iota \iota$ (Athens, 1912), Pt. 1, pp. 67–84. He shows that one was probably a dedication to the deified Theagenes; and that in the other $\theta \epsilon \grave{\alpha} \nu \ \epsilon \pi \iota \phi a \nu \hat{\gamma}$ represents the wife of the dedicator assimilated with Artemis.

An Epitaph at Gytheum. — In 'A $\rho\chi$.' E ϕ . 1912, pp. 40-43 (fig.), P. RIZAKOS publishes an irregular elegiac epitaph which was found near Gytheum in 1902, built into the wall of a tomb. It records the death of the young man commemorated, fighting on the sea in defence of Greece against the

barbarian enemies of Athens. From these circumstances and the late character of the letters of the inscription the engagement referred to is identified as one of the battles with the Goths, who had captured Athens in a previous raid in 267 A.D., and who, invading Greece again by land and sea in greater force in 269, were decisively beaten and driven back by the Greeks with the help of the Romans.

Notes on Greek Inscriptions. — In Eranos, XI, 1911, pp. 220–239, E. Nachmanson discusses: 1. the causal dative in Greek inscriptions; 2. χ άριν and ἔνεκα with the accusative, δίχα in the sense of ἄνεν, and ἄμα for σύν in late inscriptions; 3. ἔνοχον for ἔνεκα; 4. in an inscription from Priene (Hiller von Gärtringen, No. 255) $\mathring{\eta}$, in the sentence ἔστησεν τὸν ἑαντῆς ἄνδρα Θρασύβουλον Φιλίου $\mathring{\eta}$ ἐτίμησεν αὐτὸν ὁ δῆμος, κ.τ.λ. is equivalent to οὖ or ὅπον; 5. προσαρεύω on an Attic vase (Collignon et Couve, No. 1204) is not a mistake for προσαγορεύω, but the form of the greeting among the common people; 6. ἀήρ sometimes means an empty space in inscriptions from Asia Minor.

Notes on Ziehen's Leges Graecorum Sacrae. — In 'Apx. 'E ϕ . 1911, pp. 84–97, G. A. Papavasileiou proposes numerous restorations and supplementary notes to inscriptions included in L. Ziehen's Leges Graecorum Sacrae, viz. Nos. 1, 2, 7, 10, 41, 46, 47, 55, 57, 58, 62, 65, 69, 74, 75, 81, 82, 85, 88, 93, 94, 97, 98, 106, 107, 110, 117, 139.

Note on an Inscription of the Tamyneis. — In 'A $\rho\chi$ ' E ϕ . 1911, pp. 81–82 (fig.), G. A. Papavasileiou shows that the inscription published by him, *ibid*. 1907, p. 23, cannot be part of the inscription published by Wilhelm, *ibid*. 1892, p. 159, as the latter seems to believe.

Comments and Corrections. — In 'Apx.' E ϕ . 1911, pp. 121–123 (supplementary note, p. 222), S. N. Dragoumes comments upon articles *ibid*. 1910, pp. 333, 341, 361, 395, 397, 73 and 399. *Ibid*. 1911, pp. 128 and 262, V. Leonardos publishes brief notes of correction: to lines 20–21 of an inscription of Cynosarges, *Ath. Mitt*. 1906, p. 134; to a Corinthian inscription of Leucas, Herwerden, *Lexicon Graecum Suppl. et Dialect*. (correcting $B\nu\phi\rho\alpha\acute{o}\nu$ to $E\dot{\nu}\dot{\phi}\rho\alpha\acute{o}\nu$); to an inscription of Ithaca, *I. G.* IX¹, 673.

Epigraphical Notes. — In 'Aρχ. 'Eφ. 1911, pp. 211–214, S. Vases publishes corrections and supplementary notes to inscriptions published *ibid*. 1910, p. 73 and 1911, p. 207; 1911, p. 3; 1911, p. 57; 1911, p. 60; 1911, p. 101; 1911, pp. 115 f. This last inscription he assigns to the reign of Tiberius (instead of to Hadrian), as November 15 was his birthday, and dates 34–35 A.D., sixty-one years after 27 B.C., when the epithet of "Augustus" was given to Octavianus.

άρετή and εὔνοια in Inscriptions. — In Eranos, XI, 1911, pp. 180–196, E. NACHMANSON discusses ἀρετή and εὔνοια as used in honorary inscriptions.

COINS

Greek Coinage-Types. — F. IMHOOF-BLUMER continues his series of 'Contributions to the Elucidation of Greek Coinage-Types' by some additions to previous articles and new chapters on river-gods with children, astragalus-players before cult-statues, a myth of Parion, the myth of the founding of Prusa, a shrine as head-decoration of Artemis Ephesia, and pantheistic divinities. (Nomisma, VI, 1911, pp. 1–23; 2 pls.)

Aeginetan Drachmas of a New Type. — For some time six specimens of a drachma of sixth-century date having a female head in full front on the obverse, and an incuse square on the reverse have been known to numismatists but not identified, and the same is true of three specimens of a very similar type. The recent discovery of a specimen on the island of Aegina makes it probable that these are Aeginetan drachmas. They belong to the Aeginetan standard. (I. N. Svoronos, J. Int. Arch. Num. XIV, 1912, p. 190.)

An Unpublished Gold Stater. — In J. Int. Arch. Num. XIV, 1912, pp. 177–180 (2 figs.), E. J. Seltman publishes a new gold stater having on the obverse a young male head to the right, and on the reverse a chariot and horses, a dove, and below the inscription $\Phi|\Lambda|\Pi\Pi\ThetaY \leq |K|$. It is probably to

be assigned to the Macedonian occupation of Sicyon.

An Iron Coin of Phocis. — In J. Int. Arch. Num. XIV, 1912, pp. 187–189 (4 figs.), I. N. Svoronos publishes an iron coin of Phocis found at Lebadea and recently acquired by the Numismatic Museum at Athens. It has on the obverse a bull's head and on the reverse a letter φ. Only six other iron coins are known, two from Tegea, one from Heraea, two from Argos, and one probably from Thebes (not Athens or Megara as Blanchet thought).

The κόλλυβος. — In J. Int. Arch. Num. XIV, 1912, pp. 123–160 (19 figs.), I. N. Svoronos shows that the κόλλυβος was a small bronze coin about the size of a "boiled kernel of grain," in value next below the smallest fractional silver čoin at Athens. It was introduced in the second half of the fifth century B.C. at the suggestion of Dionysius nicknamed Chalkos, and was the only bronze coin in use at Athens until Macedonian times. Many κόλλυβοι have been found in Athens, but they were regarded by Postolakas (' $A\theta \dot{\eta} \nu a \iota o \nu$, 1880, pp. 7–50; ' $A\rho \chi$.' Eφ. 1884, pp. 1–10) and others as tokens. He catalogues 645 specimens. There are many different types, one apparently representing the Odeum of Pericles.

The Phidian Zeus and Elean Coins of the Empire. — The opinion has long been prevalent that the type of Zeus enthroned that was prevalent in the fourth and following centuries is to be referred to the Olympian Zeus of Phidias as its source. But the study of coins of Elis shows clearly that this statue formed rather the closing stage in an earlier artistic manner, which the following age did not carry on. (R. Weil, Z. Num. XXIX, 1912, pp. 363–382; pl.; 3 figs.)

Problems of Greek Numismatic Science. — H. VON FRITZE reviews the progress made since the time of Eckhel in the scientific treatment of Greek numismatics, points out some of the problems that yet exist, and concludes most earnestly that a halt should be called in the field of metrological investigation till more facts are at hand by further publication of the Corpus. On the other hand, chronological investigations, in which style is the surest guide, should be energetically pushed. (Nomisma, VI, 1911, pp. 24–33; pl.)

Coins with Portraits of Homer. —In J.H.S. XXXII, 1912, pp. 298–325 (pl.), Miss K.A. Esdaile calls attention to a somewhat neglected field of numismatics as a source for the study of certain monuments of sculpture, namely, the coins with portraits of Homer. She enumerates the coins of eight cities, six with figures and two with heads, ranging in date from about 300 B.C. to 300 A.D., and shows three stages in the artistic conception, the

Olympian, the Poet, and the Minstrel. The most important direct evidence is for the late fifth-century cult statue in the Homereum at Smyrna and the so-called Apollonius of Tyana, really a Homer, at Amastris in Paphlagonia. Bernouilli's dictum that there can be but one ideal type for one person is criticised, and the distinction of contorniates from coins is explained.

The Coin Collection of Helene Mavrokordatou. — In J. Int. Arch. Num. XIV, 1912, pp. 1–44 (8 pls.), I. N. Svoronos completes his catalogue of the coins in the collection of Helene Mavrokordatou begun ibid. XIII,

pp. 241 ff. (A.J.A. XVI, p. 277).

The Tetradrachma of Cotys.—In J. Int. Arch. Num. XIV, 1912, pp. 61–64 (2 figs.), I. N. Svoronos shows that the inscription on the tetradrachma in Dresden, which has the head of Dionysus on the obverse and a nude figure supposed to be Heracles on the reverse, is complete. KOTYOC XAPAKTH (not to be restored $\chi \alpha \rho \alpha \kappa \tau \eta [\rho]$) in place of the usual HPAKACOY $\leq \leq \Omega$ THPO \leq means "figure of Cotys," i.e. that the king is represented in the guise of Heracles. He also publishes another coin of similar date having the head of Dionysus on the obverse and on the reverse the letter C beside a figure resembling Heracles. He thinks this may belong to the same king.

GENERAL AND MISCELLANEOUS

The Minoan and Mycenaean Element in Hellenic Life.—The address of the president of the Hellenic Society, A. J. Evans, in June, 1912, is printed in J.H.S. XXXII, 1912, pp. 277–297. He points out the many elements of Hellenic civilization, art, religion, and poetry as we know them, that are derived from the Minoan life of Crete and its late parallel on the coasts of the mainland, the Mycenaean, and their significance for the history of the contact of the two races. Thus the inland, indigenous people of Greece had already been influenced by a long intercourse with the coast settlements before they sent out from Arcadia, not later than the eleventh century, the band of Greek-speaking emigrants to Cyprus. Although the language of the men from the north prevailed, except for geographical names, the racial type of the southerners was the one that survived the period of mixture, together with a preponderating influence in art and



FIGURE 3. - MINOAN CULT DANCE.

religion. Even Delphi was a Minoan shrine. Of especial interest is the inference of a long bilingual period for the country, and the evidence that Homer is virtually a translation from an epic of the Minoan time, that had long survived the state of society which it pictured, before it was put into Greek.

A Minoan Ring with Cult Dance.—In Novoje Minoiskoje Koljtso s vzobrazhenijem Kuljtovago Tantsa (reprinted from the Memoires of the Classical Section of the Imperial Russian Archaeological Society, VIII, 1912, pp. 52–77; pl.; 7 figs.), B. L. BOGAJEVSKY publishes a Minoan ring found by Dr. Evans at Sopata, near Cnossus and now in the museum at Heraclea. Upon the gold bezel appear four women who are taking part in a circular dance (Fig. 3). Three of them have their hands raised, probably at the sight of the divinity who appears above; the fourth figure is back to her and has not yet seen her. The heads are not represented by the artist. The flowers indicate that the scene is laid in a meadow; and the divinity is a goddess of fertility. Two objects near the figure at the left may be amulets. The writer believes that the women are engaged in a rite to call down the goddess of fertility and compares modern Russian parallels.

Two Zakro Sealings.—In B.S.A. XVII (session of 1910–1911), pp. 264–265 (2 figs.), D. G. Hogarth publishes cuts of two sealings from Zakro. One is the sealing J.H.S. XXII, p. 76, No. 10, which has been cleansed. The figures are seen to be in attitudes somewhat different from those formerly attributed to them. Whether the axe is a double axe or not is uncertain. The second sealing was formerly supposed to be blank. Careful cleansing shows that it belongs to the L.M. I period. It resembles closely the L.M. II sealing from Cnossus published by Evans, B.S.A. IX, p. 59, Fig. 37.

The Gold Ornaments from the Shaft Graves at Mycenae. — The problem presented by the ornaments from the shaft graves at Mycenae consisting of thin gold plate, with holes at the edges or having an adhesive substance on the back, and evidently not suited for applying directly to the body or dress of the dead, is explained by M. MEURER in Jb. Arch. I. XXVII, 1912, pp. 207-227 (pl.; 18 figs.). The bodies were buried in wooden caskets which were made to follow the outline of the human figure, like those used in Egypt under the New Empire and even earlier, and like them elaborately decorated, but in place of the painted decoration of the Egyptian cases, those at Mycenae had actual gold ornamentation. The gold masks, found only in the men's graves, were fastened upon the face of this casket; the so-called diadems, found only in the women's graves, were probably pectorals with pendent, leaf-like attachments. The rosettes, bells, butterflies, and other figures would cover the rest of the front. On the painted sarcophagus from Hagia Triada in Crete is the picture of a funeral ceremony before just such an anthropomorphic coffin, set up on end in a shallow trench. The wood has, of course, entirely disappeared through decay.

A Votive Tablet from Mycenae. — In Ath. Mitt. XXXVII, 1912, pp. 129–140 (pl.), G. RODENWALDT discusses the representation painted on a stucco tablet from Mycenae, first published in 'Aρχ. 'Eφ. 1887, pl. X, 2. At either side a woman is seen advancing, with an offering in her outstretched hands, towards the central figure — a divinity whose body is almost entirely hidden by a huge shield. This figure reproduces a cultus statue, — probably of Athena.

An Ivory Figure from Mycenae. — In J. Int. Arch. Num. XIV, 1911, pp. 181–186 (pl.; 3 figs.), V. Staes publishes an ivory relief in the museum at Athens representing a seated woman. It is 8 cm. high and 7 cm. wide, and was found by Tsountas at Mycenae several years ago. It is cut out of a single piece of ivory and is smooth on the back as if to be attached

to a panel. The head and hands are lacking. The figure seems to be identical (see Figs. 4 and 5) with the seated goddess on the well-known gold ring



FIGURE 4. — IVORY FIGURE FROM MYCENAE.

found by Schliemann at Mycenae. The writer argues that it was a model probably from Crete to be imitated by goldsmiths and gem engravers.

Early Mycenaean Cremation at Eleusis.— In 'Αρχ. 'Εφ. 1912, pp. 1–39 (3 pls.; 17 figs.), A. N. Skias publishes the results of further excavation, in 1908 (cf. Πρακτικά, 1898, p. 72 f.), and in 1902, of the very early Eleusinian necropolis on the south slope of the acropolis, described by him in 'Αρχ. 'Εφ. 1898, pp. 29 ff. Large numbers of graves were uncovered, ranging from pre-Mycenaean to geometric, among them a bee-hive tomb with dromos enlarged so as to form one chamber with the tholos. Contemporary with bodies that had not been burned were found many deposits of ashes, often sur-

rounded by small walls without openings, often in distinct strata, and sometimes resting upon artificial beds of pebbles or of sand. Frequently these deposits are in pits dug through earlier strata. Chemical analysis

of numerous samples of the ashes shows the presence of phosphoric acid, which must come from bones, though no partially burnt bones were found. The author argues forcibly, in spite of weighty authorities to the contrary, that nothing but the cremation of human bodies can explain the presence of these strata of ashes in the quantity and peculiar arrangement in which they were found, and that we have here conclusive evidence for the existence at Eleusis (borne



FIGURE 5. - RING FROM MYCENAE.

out by recent discoveries at Elatea, Chaeronea, Leucas, and in Crete) of cremation, as well as burial, both in Mycenaean and in pre-Mycenaean days, just as was the case in later times.

Homeric Armor. — In Ann. Arch. Anth. V, 1912, pp. 1–20, M. S. Thompson discusses Homeric weapons, armor, costume, etc. and shows that they are all found in the latter part of Late Minoan III, that is, in the phase of it called Achaean. Round shields, cutting swords, and metal greaves were in use at this time. The civilization was still Mycenaean, but changes had been imposed upon it from without. He thinks it possible that the Achaeans had an Anatolian origin.

The Prehistoric Period in Phocis. — In R. Ét. Gr. XXV, 1912, pp. 253-299 (15 figs.), G. Soteriades discusses his excavation of prehistoric sites in Phocis with especial attention to the pottery. He points out Cretan

analogies, and concludes that one race inhabited the country in encolithic times, or from the latter part of the fourth to the beginning of the third millennium. About the middle of the third millennium it was succeeded, but not wholly replaced, by another race which remained in that region until the latest Mycenaean times.

The Fortifications of Phocis.—In B.S.A. XVII (session of 1910–1911), pp. 54–75 (11 figs.), LAURENCE B. TILLARD discusses and describes the fortifications of Phocis. With the exception of Abae, Hyampolis, and the remains at Modi, they are of a uniform type and date from the restoration after the battle of Chaeronea in 332 B.C. Tithorea occupied the site of the earlier Neon, approximately that of the modern village of Velitza. Erochos was near the village of Kato-Souvála. Charadra was at Mariolátes. The kastro marked on the French map as Psilikastro may be identified as the Patronis of Plutarch. A hitherto unnoticed kastro in the valley of the Platanias lends color to the identification of the neighboring Hellenic remains as Phokikon.

The Athena Polias of Tegea.—Pausanias (VIII, 47, 5) speaks of a temple of Athena Polias at Tegea and mentions the legend that Athena gave Cepheus for the protection of the city a lock of hair cut from Medusa's head. The temple has usually been identified with that of Athena Alea. In J. Int. Arch. Num. XIV, 1912, pp. 49–54 (5 figs.), K. A. Rhomaios shows that the legend referred to is represented on coins of Tegea, where Athena appears armed with a spear, but without shield, wearing a chiton with a deep fold, and a Corinthian helmet with high crest. A similar Athena is seen on a relief found at Tegea standing behind an altar, before which are several votaries. The cult statue in the temple of Athena Alea was a sixthcentury work by Endoeus; this, however, is of a later type and probably represents the Athena Polias of Pausanias. There were, therefore, two distinct temples of Athena at Tegea.

The Owl of Athena. — The various degrees of identification of the owl with the goddess Athena, and the widely different forms of art in which they appear, are illustrated by E. M. Douglas in J.H.S. XXXII, 1912, pp. 174–178 (4 figs.). A black-figured amphora of about 550 B.c., at Upsala, shows a huge owl over the altar at which offerings are about to be made; a vase painting of the Birth of Athena, in the Vatican, has an owl in place of the goddess; a Corinthian pinax shows her in the same form as the patroness of potters (not Athenian potters only); and the owl on coins and small aryballi may be apotropaïc, Athena the Protectress. Countless clay loom-weights have Athena Ergane as an owl with arms and a distaff; while an owl with spear and helmeted human head, and an Athena with owl wings, occur on gems. Homer's $\gamma \lambda a \nu \kappa \hat{\omega} \pi \iota \hat{s}$ of course does not refer to human eyes, and there are several historic instances of the living owl inspiring the same feelings as the presence of the goddess.

Pan on the Ilissus. — At a spot on the left bank of the Ilissus near the spring Callirrhoe and the chapel of Hagia Photini the natural rock is cut to form a plateau bounded on the east and south by walls. In the eastern wall are the remains of a niche; in the southern a rude relief, 1 m. high representing Pan. This identifies the site as the sanctuary of Pan, the Nymphs and Achelous on the Ilissus described by Plato in the Phaedrus. It follows that the temple of Artemis Agrotera cannot have been the Ionic

temple drawn by Stuart and Revett, but must be sought two or three stades farther down the stream. A votive relief found in the Stadium and now in the museum in Berlin (Cat. 709) representing above a cave with Achelous, Hermes, the Nymphs, and Pan, and below a hero approaching the Eleusinian goddesses, shows that a sanctuary of Demeter and Core was situated near by. This must be the Μητρώον ἐν Ἄγρα. The Κρόνιον τέμενος which was near the latter is thus also located. (G. RODENWALDT, Ath. Mitt. XXXVII, 1912, pp. 141-150; 4 figs.)

The Lenaea. — A series of Attic vases differing widely in date and quality of workmanship exhibits scenes of worship or ceremonial, the central feature of which is usually a bearded mask of Dionysus attached to a column. With the mask are branches of ivy and round cakes (πλακοῦντες). This cult came to Athens from Thebes. It belongs to the god of the Lenaean festival, apparently identical with $\Delta \iota \acute{o}\nu \upsilon \sigma o s$ ' $O \rho \theta \acute{o} s$. The Lenaeum was outside the Dipylon, where were also an altar of the nymphs and places where the Horae and the Heros Kalamites were worshipped. [Au-GUST FRICKENHAUS, Lenäenvasen. 72tes Programm zum Winckelmannsfeste d. Archäol. Ges. zu Berlin. Berlin, 1912, G. Reimer, 40 pp.; 5 pls.; 19 figs., 4to. Jahresbericht für 1912, 8 pp.]

The Meaning of θυμέλη. — Attacking the problem from the etymological rather than the theatrical side, and tracing the history of the word $\theta \nu \mu \epsilon \lambda \eta$ from Homer down through Pindar and the tragedians to the scholiasts and lexicographers, A. S. F. Gow finds that θύω meant "to move rapidly," then "to burn," then "to burn ritually," and that $\theta v \mu \epsilon \lambda \eta$ meant place of fire, hearth, public hearth (hence its use in an inscription for the tholos at Epidaurus), top or fire place of an altar, then altar, then the altar of Dionysus, then orchestra, and lastly the stage. In the earlier uses the plural seems to have sometimes the meaning of the singular. It is used both literally and figuratively as a parallel to $\dot{\epsilon}\sigma\chi\dot{\alpha}\rho\alpha$ and $\dot{\epsilon}\sigma\tau\dot{\iota}\alpha$. (J.H.S.

XXXII, 1912, pp. 213-238.)

Greek Lamps and Lanterns. - In Jb. Arch. I. XXVII, 1912, pp. 52-59, E. Pfuhl comments on recent discussions of the false cothon, the bowl with inward and downward curved rim, used as censer, toilet box, lamp and perhaps as a sauce bowl on the table; and calls attention to the specimens used as color pots which were found at the temple of Aphaea at Aegina. He attributes the origin of the type to lamp makers of early Corinth, who derived it from the wickless Egyptian lamp, while the Attic lamp with spout came from Minoan Crete by way of Asia Minor or Syria. Referring to S. Loeschcke's large work on ancient lamps and lanterns. he deprecates assigning a strictly Hellenistic origin to the round and square, peak-topped lanterns.

Notes on Delphi. — In 'Apx. 'E ϕ . 1911, pp. 159-168 (fig.), A. D. Kera-MOPOULLOS continues his studies of Delphi (cf. ibid. 1909, pp. 263 ff.; 1910, pp. 171 ff.). a. He argues that the Stoa of the Athenians, the inscription on which shows that it commemorated a naval victory, must be a special Athenian monument for Salamis. έλόντες τὸν πολέμιον should be construed together (not $\tau \hat{o} \nu \pi o \lambda \epsilon \mu \hat{i} o \nu$, as has always been assumed) = $\nu \iota \kappa \hat{n} \sigma a \nu \tau \epsilon s \tau \hat{o} \nu$ πολέμιον, "having defeated the enemy" par excellence, i.e. the Persians. Pausanias saw, somewhere upon the monument, an inscription, now lost, containing the names of defeated Peloponnesian states, the monument having apparently been put to a new use, and his mistake in thinking the stoa a monument to Phormio's victory in 429 B.C. was furthered by the indefinite τον πολέμιον of the original inscription. b. The present inscription on the pedestal of the trophies of Marathon is an archaizing restoration of the second century B.C. on an enlarged form of the monument. The original, and longer, inscription that was erased may be restored from traces: 'Α] θενα[ῖοι 'Απόλλονι πυθί]οι ἀκρ[οθίνια τες Μαραθονι μάχες ἀνέθεσαν] ἀ[πὸ Μέδον. The decree of the archorship of Archidamus, about 250 B.C., inscribed upon the right, that is, the narrow, face of the original pedestal was covered, after considerable exposure to the weather, by one of the blocks of the extension. For former views, assuming two alterations and a curtailing of the original monument, cf. Colin, Fouilles de Delphes, III, 2, pp. 9 ff. c. In Isis and Osiris, 35 (Ethica, p. 364 e), where Plutarch speaks of the identification of Dionysus and Osiris, and of the Thylades at Delphi, the word άρχικλά makes nonsense. The author proposes the emendation ἀρχηΐδα, which makes good sense and agrees with inscriptions of Delphi which mention an apxnis of the Thylades. Flavia Clea, who is addressed by Plutarch, must have been such an $d\rho\chi\eta\dot{\tau}s$ (cf. Ella. $Z\eta\tau$. 12; Ethica, p. 293 f.). In Ath. Mitt. XXXVII, 1912, pp. 219-225, Fr. W. v. Bissing discusses: (1) the sanctuary of the hero Phylacus. The foundation under the tholos is the earliest sanctuary of the hero, and the space around it is his temenos; (2) Oriental votive offerings at Delphi. A fragment of alabaster carved into the form of a child and decorated with an engraved design (B.C.H. 1896, pl. XXXI, 1) is Egyptian, judging from the quality of the material. A vase of black granite (?) (Fouilles de Delphes, V, p. 21) resembles Egyptian stone vases of the Saïte period. One of the two scaraboids (ibid. p. 25) is Phoenician work of the middle of the first millennium B.C. The other resembles technically the fayence of Naucratis. A bronze statuette (ibid. pl. II, 2) is Syrian. If the bronze bowl (ibid. V, pls. XIX, XX) is to be ascribed to Phoenician art, it forms with the analogous vases from Crete (Museo Italiano, II, pls. II, IV, V, X, 3, 4) a group which is to be distinguished from the bowls found at Nemrud and Praeneste and the other bronzes from the Cave of Zeus.

Literary Evidence for the Topography of Thebes. — In B.S.A. XVII (session of 1910–1911), pp. 29–53 (pl.), A. W. Gomme marshals the literary evidence for the topography of Thebes and finds that the generally received theory of Fabricius, that the lower town of Thebes extended over the high hills east and west of the Cadmea conflicts with it. He argues that the lower town throughout ancient times extended toward the north in the flat plain.

The Brazen Threshold and the Thorician Stone at Colonus. — In Arch. Rel. XV, 1912, pp. 359–379, O. Gruppe argues that the "brazen threshold" at Colonus in Sophocles, O. C. l. 57, is a reminiscence of Hesiod's $\chi \acute{a}\lambda \kappa \epsilon o s$ ovõ's (Theog. 811), and was not due to any local peculiarity, as Büttner thought. The "Thorician rock" (O. C. l. 1595) was probably originally a stone believed to possess fertilizing powers (cf. Schol. to Pind. Pyth. IV, 246).

The Population of the Peloponnesus. — In Klio, XII, 1912, pp. 261–280, E. CAVAIGNAC discusses the population of the Peloponnesus in the fifth and fourth centuries B.C. The figures of Herodotus were not for his own time, but represent a calculation made in the sixth century. Between 550

and 460 B.C. the free population was about 638,000, and the number of slaves was not great. At the time of the battle of Leuctra the total population of the Peloponnesus was about the same, but the number of slaves had increased to about 300,000.

Thessaly and the Vale of Tempe. — In the Bulletin of the Geographical Society of Philadelphia, X, 1912, No. 3, pp. 71-92 (5 figs.); No. 4, pp. 1-25 (4 figs.), W. W. Hyde describes a visit to Thessaly and the Vale of Tempe.

Heliodorus the Periegete. — Heliodorus the Periegete is discussed by F. Drexel in Ath. Mitt. XXXVII, 1912, pp. 119–128. The descriptions of grave monuments in the pseudo-Plutarchian lives of the ten orators are probably taken from the work of Heliodorus $\pi\epsilon\rho i$ $\mu\nu\eta\mu\dot{\alpha}\tau\omega\nu$. They include statements in regard to the state of preservation of the graves which must be explained as additions made by an editor at about the middle of the first century B.C. The ruinous condition of Athenian buildings attested by this editor was due to the devastation of Athens by Philip V of Macedon in 200 B.C. The work $\pi\epsilon\rho i$ $\mu\nu\eta\mu\dot{\alpha}\tau\omega\nu$ is thus shown to be earlier than that year, and its author is to be identified with Heliodorus of Antiochia, the minister of Seleucus Philopator, unless Ruhnken's emendation to $\Delta\iota\dot{\alpha}\delta\omega\rho\sigma$ s be correct.

Greek Influence in Central Asia. — In Z. Assyr. XXVII, 1912, pp. 139–146 (pl.), J. Strzygowski holds that the traces of Greek influence in the art of China and India do not date from the Roman or the Byzantine period, but we must assume an undiscovered centre of art that was influenced by Greece at an early date, from which the arts of India, China, and the monuments of Gandhara and of Kuseir Amara are only late echoes.

The Decadence of Greek Writing in Persia. — In R. Arch. XX, 1912, pp. 1–31, J. de Morgan studies from coins the decadence of the Greek alphabetic characters in Persia under the Arsacidae (171 B.C.–228 A.D.). The coins of the principal vassals of the Persians are included in this study. At first the letters were good Greek letters, but by the end of the period they became hardly recognizable.

History of the British School at Athens. — In B.S.A. XVII (session 1910–1911), pp. ix–xxviii, George A. Macmillan gives a brief history of the British School at Athens from the publication of Professor Jebb's 'Plea for a British Institute at Athens' in May, 1883 to 1910. The School was opened in 1886. It has carried on excavations in Cyprus, at Megalopolis and Naucratis, on the island of Melos, in Crete, in Laconia (especially at Sparta), and in northern Greece. Important explorations and other investigations have also been conducted. The "History" tells of the growth of the School and of the gifts it has received. A bibliography of the work of students of the School is appended (pp. xxxix–liv).

ITALY

SCULPTURE

A Terra-cotta Head at Bologna. — In Boll. Arte, VI, 1912, pp. 354–358 (2 figs.), P. Ducati publishes the head of a girl in terra-cotta found at Bologna in 1903 and now in the Museo Civico. It is 18 cm. high and probably dates from the first century B.C. He regards it as an Etrusco-Roman work.

A Portrait Statue. — In J.R.S. I, 1911, pp. 206–211 (3 pls.; fig.), Katharine A. Esdaile discusses the statue of a man in the Palazzo Barberini who is holding the portrait of an ancestor in each hand (Arndt, Gr. und $R\ddot{o}m.$ Portraits, Nos. 801–804).

The Tutulus in Roman Art. —In J.R.S. I, 1911, pp. 212–226 (pl.; 2 figs.), KATHARINE A. ESDAILE discusses the *apex* or *tutulus* in Roman art.

VASES

South Italian and Other Relief Pottery. — Various notes and illustrations supplementary to his 'Calenesche Reliefkeramik' are published by R. PAGENSTECHER in Jb. Arch. I. XXVII, 1912, pp. 146–173 (26 figs.). Some are new data belonging to pieces there catalogued, others concern additions to the list. The scanty material from Sicily and Sardinia is here included.

Potters' Marks. — In J.R.S. I, 1911, pp. 199–205 (3 figs.), C. L. WOOLLEY discusses some potters' marks on undecorated black ware from Cales.

INSCRIPTIONS

A Military Diploma.—In C. R. Acad. Insc. 1912, pp. 394–407, J.-B. MISPOULET discusses the military diploma dated February 9, 71 found in Thrace and published by Vassis in 'A $\theta\eta\eta\nu\hat{a}$, 1911, p. 145.

A New Proconsul. — A fragment of an inscribed bronze plate referring to the Numidian city described as Colonia Iulia Assuritana is published and discussed in B. Com. Rom. XL, 1912, pp.113–151 (fig.) by Maria Marchetti. A proconsul, A. Vibius Habitus, becomes the patron of the town, and enters into the relations of hospitium with its citizens. The name of the proconsul is new in the Fasti of the province, which he governed early in the reign of Tiberius.

A Vice-Praetorian Praefect. —In C. R. Acad. Insc. 1912, pp. 372–384, E. Cuq discusses the expression ag(ens) vic(es) p(raefectorum) p(raetorio) in an inscription recently found at Souk El-Abiod, Tunis. It dates from 397 or 398 A.D. Such officers held merely temporary appointments. He adds a list of twenty-nine men known to have held this position.

The Tribunicia Potestas of Nero. — In C. R. Acad. Insc. 1912, pp. 385–392, L. Constans shows that in inscriptions dating from 60 a.d. and later the number of the year of the tribunicia potestas of Nero is one more than it should be, and argues that the extra year was added by Nero as a result of the comet of that year to prevent the fulfilment of the prophecy of a change of reign.

Magna Mater in Inscriptions. — In J.R.S. I, 1911, pp. 50-56, A. v. Domaszewski discusses the extent of the cult of Magna Mater as shown by inscriptions.

Roman Grave Inscriptions.—In Eranos, XII, 1912, pp. 189-194, H. Armini discusses three inscriptions from the graves of Roman soldiers found near Rome.

COINS

The Edwinstowe Find of Roman Denarii.—The Edwinstowe find of Roman denarii is analyzed and described in detail by G. C. Brooks in *Num. Chron.* 1912, pp. 149–178. The deposit was found in an earthen jug

on Kingsland Farm, Edwinstowe, Nottinghamshire, in 1911, and consists of 367 denarii, ranging in date from Nero to the second consulship of Commodus, together with a provincial denarius of Trajan struck for Lycia in his second consulship, and a contemporary forgery cast from a denarius of his sixth consulship. The larger numbers of coins were of Vespasian (34), Domitian (26), Trajan (95), Hadrian (94), Antoninus Pius (36), Faustina Senior (14), and Marcus Aurelius (22). The absence of legionary coins of Marcus Aurelius is interesting.

The Fröndenberg Hoard of Denarii, and Roman Trade in Germany. — On July 25, 1909, a hoard of Roman denarii was found at Fröndenberg on the Ruhe. It consisted of 257 pieces, ranging in date from six specimens of the legionary coinage of Antony through the years 175, 176, and 177 A.D. By far the largest number (177) were of the Flavian era. A detailed description of the find, and of a smaller one (80 coins) in Middels Osterloog, gives K. Regling occasion to discuss at some length the history and nature of Roman trade in Germany, and to lay down certain new and interesting principles. A full list is appended of similar finds of Roman coins in the limits of free Germany. (Z. Num. XXIX, 1908, pp. 189–253; 2 figs.)

The Coinage of Augustus.—In R. Ital. Num. XXV, 1912, pp. 147-170 (map and two plates), Lodovico Laffranchi begins a detailed treatment of the coinage of Augustus. The material is arranged geographically and

the present article deals with the coinage of Spain.

A Counterfeit Augustan Coin.—I. L[AFFRANCHI] describes a counterfeit sestertius already noted by him (R. Ital. Num. 1910), several specimens of which are now known. One was sold in Germany for 1500 marks. (R. Ital. Num. XXV, 1912, p. 288.)

The Counterfeit Coin of Ovid. — The famous imposture with the name of Ovid is discussed by G. Pansa ($R.\ Ital.\ Num.\ XXV$, 1912, pp. 171–179; fig.), who supports the view that the legend OYHI Δ IO \leq NA \leq Ω N appearing on a bronze coin of Tralles is the result of a substitution of NA \leq Ω N for KAI \leq AP \in Ω N (see other coins of Tralles); and that the first word represents not *Ovidius*, but *Veidius*, who was perhaps the notorious Vedius Pollio, friend of Augustus. The name Π OAAI Ω N · OYHI Δ IOY appears on a coin of Tralles.

Illyrian Coins. — In Mb. Num. Ges. Wien, IX, 1912, pp. 37–39, R. M[ÜNSTERBERG] describes over thirty hitherto unknown coins of Dyrrhachium and Apollonia which he inspected in the private collection of Dr. Karl Patsch, Bosnia-Herzegovina. The coins are almost all victoriati.

A Medallion of Antoninus Pius. — In J.R.S. I, 1911, pp. 187–195 (4 figs.), A. W. VAN BUREN discusses a bronze medallion of Antoninus Pius dated between 140 and 144 A.D.

Postumus and the Spoil of the Franks. — In R. Ét. Anc. XIV, 1912, pp. 292–298 (fig.), A. Blanchet calls attention to a large bronze coin having on the obverse the head of Postumus, and on the reverse Postumus on a raised platform crowned by two Victories and hailed by soldiers standing below. Beneath the soldiers are several pieces of armor and the word adlocutio. The coin seems to commemorate the famous speech of Postumus in which he urged his soldiers to give up the spoil which they had taken from the Franks, — a speech which led to his being proclaimed emperor by them.

GENERAL AND MISCELLANEOUS

Remains of Prehistoric Rome. — An elaborate article on the remains of prehistoric Rome gathered into the municipal museums in the course of the last forty years appears in B. Com. Rom. XL, 1912, pp. 15–102 (4 pls.; 29 figs.). The author, G. Pinza, gives especial attention to the light which this kind of evidence furnishes to the student of early topography, particularly in regard to the "Servian" Wall.

The Distribution of Races in Italy. — In Mitt. Anth. Ges. XLII, 1912, pp. 49-58 (2 figs.; 6 maps), R. v. Scala states briefly the evidence for the distribution of races in Italy in early times.

Villanovan and Etruscan Bologna. — M. ALBERT GRENIER has added another to the important series of publications of the French Schools of Athens and Rome in his monograph on Villanovan and Etruscan Bologna. After a careful examination of the remains of dwellings, of the cemeteries with their pottery and grave stelae and many objects of metal he arrives at the conclusion that the Villanovans, to whom he would give the name of Umbrians, entered the valley of the Po from Central Italy in the first Iron Age and lived there peaceably for about two and one-half centuries, that is, until the second half of the sixth century B.C., when they were conquered by the Etruscans, who originally came from the eastern Mediterranean. The Villanovan civilization was entirely distinct from that of the Etruscans and was superseded by it. [Bologne villanovienne et étrusque VIIIe-IVe siècles avant notre ère. Par Albert Grenier. Paris, 1912, Fontemoing et Cie. 540 pp.; 150 figs.; 4 plans, 8vo.]

The Spirits of the Departed among the Etruscans. — In S. Bibl. Arch. XXXIV, 1912, pp. 191–196, G. Ancev holds that the clue to the decipherment of the Etruscan inscriptions is to be found in Albanian, and that the beliefs of the Albanians in regard to the spirits of the dead afford the best explanation of the Etruscan funeral rites.

The Name of Vanth. — In B. Soc. Ant. Fr. 1912, pp. 243–244, the Comte DE Charencey argues that the name of the Etruscan divinity Vanth comes from the Greek word $\theta \acute{a}\nu a \tau o \varsigma$.

A Guide to the Classical Antiquities in Rome. — The rapid increase in the number of classical antiquities in the various Roman collections has made necessary a new edition of Helbig's well-known Guide, which is now provided by the house of Teubner. The revision is largely the work of Messrs. Amelung, Reisch, and Weege and fills two volumes. Volume I contains descriptions of the antiquities in the Vatican collections, the Capitoline Museum, the Palace of the Conservatori, the Antiquarium Comunale, and the Museo Barracco; and Volume II those in the Lateran Museum, the Museo delle Terme, the Villa Borghese, the Kircherian Museum, the Museum of Pope Julius, the Palazzo Spada, the Palazzo Barberini, and the Villa Albani. The books are well bound and of such a size that they can easily be slipped into a coat pocket. [Führer durch die öffentlichen Sammlungen klassischer Altertümer in Rom. Von Wolfgang Helbig. Dritte Auflage herausgegeben unter Mitwirkung von Walter Amelung, Emil Reisch, Fritz Weege. Leipzig, 1912, B. S. Teubner, Bd. I: x, 634 pp.; 29 figs. Bd. II: 547 pp.; 12 figs. M. 24.7

Marius, Saturninus, and Glaucia. — In Marius, Saturninus, und Glaucia,

Beiträge zur Geschichte der Jahre 106-100 v. Chr. (Jenaer Historische Arbeiten, Heft 3. Bonn, 1912, A. Marcus und E. Webers Verlag, 134 pp.), F. W. Robinson sets forth the sources for the history of Rome from 106-100 B.c. with a discussion of the political developments of that period. A chronological table is appended.

Roman Senators from Vespasian to Trajan. — In Senatores Romani qui fuerint inde a Vespasiano usque ad Traiani exitum (Klio, Zehntes Beiheft. Leipzig, 1912, T. Weicher. 205 pp. 8vo. M. 12), Bruno Stech publishes a chronological list of the Roman senators from Vespasian to the death of Trajan. He discusses the senators from patrician and plebeian families, and those from Italy and the provinces, and adds an alphabetical list of their names.

Superior and Inferior in the Names of Roman Provinces.—In M. Soc. Ant. Fr. LXXI, 1911, pp. 148-164, V. Chapot tries to show that the terms superior and inferior used in designating certain Roman provinces have reference solely to altitude. The high, mountainous part of a province was superior, the lower part inferior.

The Syrian Sanctuary of the Janiculum.— The scattered works of the late Paul Gauckler are to be collected and published in a series of volumes. The first of these contains his writings on the Syrian Sanctuary excavated on the Janiculum in 1908 and 1909, —ten treatises in all. An appendix contains six reprinted articles (the Niobid of the Gardens of Sallust, the standing Amazon of the Gardens of Sallust, a note on a sarcophagus with historical representations, the Antinous of the sculptor Antonianus of Aphrodisias, a helmeted head of a woman, found at Rome, the "Priestess of Anzio"), and one brief note, hitherto unpublished, on monuments connected with the worship of Isis. One of these is the "Isis Casati" (2 pls.), which is interpreted as a portrait of Roman date; the other is a fragmentary terra-cotta plaque, on which is a winged Isis figure. This is also of Roman date. The volume opens with a sketch of the last years of Gauckler's life, the period of his activity in Rome. The articles are reprinted with very few editorial changes. Many new illustrations are added; in fact, nearly half those in the book are new. [PAUL GAUCKLER, Le Sanctuaire syrien du Janicule, Paris, 1912, Alphonse Picard et fils. ix, 367 pp.; 58 pls.; 39 figs. 8vo. 15 fr.]

The Roman Army in Africa.—The military occupation of Africa under the Roman emperors forms the subject of a book by Professor René Cagnat of the Collège de France. In the first volume, which has already appeared, he discusses the African wars under the empire; the army of occupation down to the time of Diocletian, taking up in turn the army of Africa and Numidia, its composition, officers, the Legio III Augusta, the auxiliaries and the garrison of Carthage, then in a similar manner the armies of Mauretania Caesarensis, and Mauretania Tingitana. He follows this with a discussion of the fleet, the administrative work, the recruiting, commissariat, etc. the work of the army in times of peace, the civil status of the soldiers, their savings, and the veterans. [L'Armée romaine d'Afrique et l'occupation militaire de l'Afrique sous les empereurs. Par René Cagnat. I. Paris, 1912, E. Leroux. 423 pp.; 4 pls.; 2 figs., 4to.]

The History of the Trophy.—The history of the trophy is the subject of an extended monograph in Bonn. Jb. 1911, pp. 127-235 (5 pls.;

8 figs.), by K. Woelcke. The article includes lists of coins representing trophies.

SPAIN

Two Spanish Topographies. — A brief study of the sites of ancient Gades and New Carthage, with special reference to the literary sources, is made by M. Kahrstedt in Arch. Anz. 1912, cols. 217-235 (3 plans). Gades the original Punic city, the enlarged double city laid out by Balbus, and the still later suburbs of the imperial time, as described by Strabo and Pliny, are located and their extent and population estimated. The first city, down to the time of Caesar, occupied the elevated isthmus between the bay of Cadiz and the Mare del Sud, some miles from the northwest end of the island of Leon. The Romans extended it to the end of the island and the suburbs took in another smaller island and the strips of coast on the mainland at the mouth of the Guadelese. The necropolis, both Punic and Roman, lay on another hill to the east of the city, beyond some low meadows, along the shore; while the Heracleum was some miles away, at the southern end of the island. The situation and main features of Carthago Nova, including the five hills, as given by Polybius and Livy for the time of the siege by Scipio in 207 B.C., can also be made out. The salt lake, which formerly bounded one side of the peninsula, is now low-lying meadow. Polybius turned the points of the compass about nearly ninety degrees, a not uncommon error of ancient geographers, and he seems also to have misrepresented certain features, especially the entrance to the harbor, perhaps for the sake of enhancing the apparent value of the seaport.

Coins from the Vicinity of a Roman Mine. — In J.R.S. I, 1911, pp. 100-106 (pl.), G. F. Hill and H. W. Sanders describe fifty-nine different types of Roman coins found near a Roman mine still being worked 12 km. northwest of La Carolina (Jaen). Some of the Archimedean screws used by

the Romans to keep the mine clear of water still exist.

FRANCE

Monuments relating to Isis in Gaul. — In R. Arch. XX, 1912, pp. 197–208 (9 figs.), E. Guimet ('Les Isiaques de la Gaule') publishes and discusses several small figures from Arles, Avignon, and the neighborhood, which clearly pertain to the worship of Isis, but were found in Gaul and are probably not of Egyptian manufacture. The most interesting, perhaps, is a terra-cotta head of Horus-Bacchus from Vaison. The Isiac objects found in tombs in France have been too much neglected by scholars. In a note (pp. 208–210), A. Moret discusses the inscription of a statuette (ushabti) from Entrepierres, a mutilated text from chapter VI of the Book of the Dead.

The Pillar of Antremont. — In R. Arch. XX, 1912, pp. 216-235 (3 figs.), ADOLPHE REINACH describes in detail the pillar of Antremont (now in the museum at Aix in Provence), and dates it somewhat before 125 B.C. He regards it as a monument commemorating a chieftain of the Salyes atroces conquered by Calvinus in 123 B.C. The much earlier date assigned to it by Clerc ('Aquae Sextiae' in Annales de la Faculté des Lettres d'Aix, IV, 1910, 327 pp.; 10 pls.), is discussed.

The Column of Yzeures. — In R. Arch. XX, 1912, pp. 211-215 (4 figs), Em. Espérandieu publishes a letter from Franz Cumont on the column of

Yzeures, in which this and similar columns are explained as monuments to Roman emperors deified in honor of their victories over barbarians. Mr. Espérandieu discusses the geographical distribution of these monuments and reconstructs that at Yzeures with a base in three tiers (his No. 2998 at the bottom, then 2997, then 2999), on which stood a high shaft surmounted by an equestrian group.

A Gallo-Roman Mercury. — In B. Soc. Ant. Fr. 1912, pp. 220–225 (fig.), A. Blanchet publishes a small bronze (71 cm. high), recently purchased by him in London. It represents Mercury holding a purse in his right hand and a cornucopia and caduceus in his left. His hat has wings and a crescent. He shows that it is the same figure as that reproduced by Grivaud de la Vincelle (Recueil des monuments antiques, etc. II, 1817, pp. 116–117, pl. XIII, 8), who says it was found near Maubeuge about 1703.

A Sepulchral Inscription. — In B. Soc. Ant. Fr. 1912, pp. 272–277, A. Audollent publishes a Latin sepulchral inscription said to have been found near the temple of Mercury on the Puy de Dome and now preserved at Vichy. He believes that it came from Béziers.

SWITZERLAND

The Boar of Fribourg.—In B. Soc. Ant. Fr. 1912, pp. 253-256 (fig.), A. HÉRON DE VILLEFOSSE publishes a small bronze boar 12 cm. high found at Fribourg, Switzerland. The animal is on its haunches. Above are two rings for suspension.

GERMANY

The Villa Rustica in Germany.—The development in Italy of the old farmhouse into the luxurious country mansion of a Roman gentleman, and the types of country houses found in Roman Germany on both sides of the Rhine, were discussed by G. Kropatscheck at the November (1910) meeting of the Berlin Archaeological Society. The kind of villa rustica common in Germany, a long central building with projecting wings or towers at the ends, survives in parts of modern Italy and is attested by African mosaics as widely used throughout the empire. An atrium was never a part of the genuine country house. Greater luxury and a closer resemblance to Italian life appears in the region west of the Rhine than on the east, but in both the climate required heating arrangements that were not used in the south. The use of meteoric stones in the roofing, to ward off lightning, came in with the advent of baked clay tiles in place of the old mud roofs. (Arch. Anz. 1912, cols. 20–22.)

The Roman Castellum near Kreuznach. — Excavations in 1904, 1906, and 1908 in the Roman castellum at Kreuznach are described in detail by O. Kohl in Bonn. Jb. 1911, pp. 286-315 (4 pls.; 11 figs). This third-century fortification, in the rear of the older station at Bingium (Bingen) belongs to a second line of defence, after the Germans had broken through the limes.

A Roman Monument.—A monument found at Neumagen (Noviomagus) and now in the Provincial Museum at Trier, has been recently restored, and is fully described in *Bonn. Jb.* 1911, pp. 236–250 (2 pls.; 5 figs.) by E. FOELZER. It represents a ship with one bank of oars, a ram, lofty

stem and stern, the latter ending in the head of an animal. Eight of the crew are represented, and there are four large casks on the deck. The vessel appears to be a naval transport of the Rhine fleet, perhaps of the first century A.D.

Roman Candelabrum in Heidelberg.—In Röm.-Germ. Kb. V, 1912, pp. 91 f. R. PAGENSTECHER discusses a Roman candelabrum of poor workmanship, now in the University Museum at Heidelberg. It was made to hold three lamps, and the writer shows that it must have rested on a support similar to those discussed by K. S. Gutmann, *ibid.* V, 1912, pp. 10 f.

A Relief at Bonn.—A relief in the Provincial Museum at Bonn, found in 1906 in the vicinity of Cologne, is interpreted by H. Lehner in Bonn. Jb. 1911, pp. 251-258 (pl.). It represents apparently a Gallo-Roman funeral, perhaps the first specimen of the kind in the region.

Graeco-Buddistic Antiquities in Leipzig. — In the Jahrbuch des städtischen Museums für Völkerkunde zu Leipzig, IV, 1910, pp. 43–47 (2 pls.), Т. Вьосн describes briefly the Graeco-Buddistic antiquities in the Museum für Völkerkunde in Leipzig. They came from Takht-i-Bāhī in the district of Peshawar, northwestern India, and were collected by Dr. H. M. Clarke.

AUSTRIA-HUNGARY

The Date of the Prehistoric Copper Mines near Bischofshofen.—In Mitt. Anth. Ges. XLII, 1912, pp. 196-208, G. Kyrle investigates the date of the prehistoric copper mines on the Mitterberg near Bischofshofen, and concludes that the time when copper was first taken from them cannot be determined with certainty, but that they were worked in the later Bronze Age, and abandoned in prehistoric times.

A Cemetery at Marosszentanna.—In Dolgozatok az Erdélyi Nemzeti Múzeum, III, 1912, pp. 250-367 (108 figs.), I. Kovacs discusses the contents of seventy-four graves opened at Marosszentanna in 1903. Fibulae and pottery belong to the middle La Tène period, but the cemetery dates from the end of the third or beginning of the fourth century A.D.

GREAT BRITAIN AND IRELAND

Bibliography of Roman-British Remains.—In A Bibliographical List descriptive of Romano-British Architectural Remains in Great Britain. (Cambridge, 1912, University Press [New York, G. P. Putnam's Sons]. XII, 156 pp. 8vo. \$2.25 net) ARTHUR H. LYELL has collected, evidently with great care, the scattered notices of ancient remains in Great Britain. These he has arranged topographically, by counties. An index is added.

Bronze Age Pottery.— The Hon. John Abergromby has published in two splendid volumes an elaborate study of the pottery of the Bronze Age in Great Britain and Ireland. He discusses the types of the beaker in Britain and on the continent, their ornamentation, the objects found with them in the graves, the civilization of the people who made them, various food vessels, cinerary urns, burial customs, etc. He concludes with a brief discussion of Stonehenge which he thinks was erected to commemorate annually at midwinter the death and burial of a god and goddess of Nature. There are reproduced in the plates 1611 pieces of pottery, and 155 other objects found in the graves. [A Study of the Bronze Age Pottery of

Great Britain and Ireland and its associated Grave-goods. By the Hon. John Abergromby. Oxford, 1912, Clarendon Press. 2 vols. 163 pp.; 61 pls.; 10 figs. 128 pp.; 49 pls.; 2 figs. 4to. £3, 3s net.]

Roman London. — In J.R.S. I, 1911, pp. 141-172 (map; 8 pls.; 12 figs.), F. HAVERFIELD gives a general account of Roman London, its history,

extent, remains, etc.

Hoards of Roman Gold Coins Found in Britain. - The first of two papers by H. H. E. Craster and F. Haverfield on hoards of Roman gold coins found in Britain is published by Mr. Craster in Num. Chron. 1912, pp. 265-312 (8 pls.). It describes two important hoards found at the Roman town of Corstopitum, near Corbridge during the recent excavations. One hoard consisted of 159 Roman aurei and two bronzes contained in a bronze jug (A.J.A. XVI, p. 141; XVII, p. 129; also J.R.S. II, 1912, pp. 1-20), and ranging in date from the last years of Nero to the eleventh year of the tribunician power of M. Aurelius (159-160 A.D.). The hoard represented probably a gradual accumulation of savings begun in the last quarter of the first century, and hidden about 160-162. The second hoard was discovered in September, 1908, wrapped in a sheet of lead (A.J.A. XIII, p. 371). It consisted of 48 aurei solidi and a gold ring that lacked the stone. The coins dated from Valentinian (after 365) to Maximus, and were apparently hidden about 385-387. Both hoards are now in the British Museum.

Roman Coins Found in Anglesey.—A small find of Roman republican and imperial coins made at Llanfaethlu, Anglesey, North Wales, sometime in the seventies of the last century, is now first described by G. F. H[ILL]. The dates of the coins extend from 150 B.c., or thereabout, to 87 A.D., soon after which latter date the hoard appears to have been buried. (Num. Chron. 1912, pp. 225–227.)

AFRICA

Some Place-names in Eastern Libya. — There is at present a growing tendency to exaggerate the preponderance of Semitic influence in Eastern Libya — a tendency which threatens to obscure the fact that, despite all foreign infiltrations, that region was in ancient times a country fundamentally Hamitic both in population and language. In S. Bibl. Arch. XXXIV, 1912, pp. 234–238, O. Bates discusses certain place-names found in antiquity between the Tunisian Regency and Egypt that form a part of the body of evidence which shows that the population to the west of Egypt was Hamitic and not Semitic, and that the language of these Eastern Libyans was a form of one of those languages which to-day survive throughout Northern Africa under the general name of Berber.

A Metrical Inscription from Mdaourouch.—In C. R. Acad. Insc. 1912, pp. 151-156 (fig.), F. Cumont discusses a metrical funerary inscription from Mdaourouch, the ancient Madaurus, Algeria, now in Brussels. The deceased, who had been initiated into the mysteries of Bacchus, is expected to banquet with the gods in the other world.

The Small Bronzes of Mahdia. — In Mon. Piot, XVIII, 1910, pp. 5-17 (5 pls.; 3 figs.), A. MERLIN discusses the small bronze figures found in the

sea off Mahdia (see A.J.A. XVI, p. 269).

Roman Remains in Tunisia.—In Rec. Past, XI, 1912, pp. 110-124 (11 figs.), J. G. Winter describes a recent visit to the Roman ruins in Tunisia especially those of Carthage, Dougga, Susa, and El-Djem.

Surveying in Roman Africa.—In Bonn. Jb. 1911, pp. 39-126 (7 pls.; 7 figs.), W. Barthel publishes an elaborate study of the Roman land survey in Africa. The maps show how much of the Roman delimitation may still be traced.

Tamallen.—In B. Soc. Ant. Fr. 1912, pp. 286–292, J. TOUTAIN shows that the town of Telmine in the oasis of Nefzaoua in Southern Tunisia is the site of the ancient Turris Tamalleni, also known as Tamallen. It was a turris or $\pi \nu \rho \gamma \rho \sigma$ of the Nybgenii.

EARLY CHRISTIAN, BYZANTINE, AND MEDIAEVAL ART

GENERAL AND MISCELLANEOUS

Byzantine Monuments in Constantinople.—In Arch. Miss. N. S. 3, 1911, pp. 1-17 (14 pls.), J. EBERSOLT reports upon his mission to Constantinople to study Byzantine seals, early churches, and pieces of Byzantine sculpture scattered about Stamboul.

Saint Eirene at Constantinople. — The church of Saint Eirene at Constantinople has been thoroughly examined and measured, and drawings and photographs have been made by Walter S. George. His drawings, photographs, description, and discussion are published with an historical notice by Alexander Van Millingen. In an appendix A. M. Woodward and A. J. B. Wace describe, illustrate, and discuss the monument of Porphyrios (see R. Arch. XVIII, 1911, pp. 76 ff.; B.S.A. XVII, 1910-1911, pp. 88 ff.). The basilica built by Constantine, burnt in 532 A.D., may have influenced the plan of Justinian's church. The lower walls of the existing edifice, as high as the springing of the wide vaults, and the piers of the interior walls up to the gallery level may well date from the time of Justinian. The same is true of capitals and various details. The present narthex was probably built after the fire of 564, and the upper parts of the building after the earthquake of 740. Buttresses and the chambers at the eastern end were later additions. Not all of these conclusions are certain. The monument of Porphyrios, a victorious charioteer, is to be dated 490-510 A.D. The reliefs show a late survival at Constantinople of Roman, as distinguished from Byzantine, style. [The Church of Saint Eirene at Constantinople, by W. S. George, Architect, with an historical notice by Alexander VAN MILLINGEN, and an Appendix on the Monument of Porphyrios by A. M. WOODWARD and A. J. B. WACE. London, 1913, Henry Frowde, Oxford University Press. xiv, 87 pp.; 30 pls.; 39 figs. guineas net.7

Studies in Byzantine Sculpture. — In Arch. Miss. N. S. 3, 1911, pp. 19-109 (23 pls.), L. Bréhier presents a study of the different techniques employed in Byzantine sculpture.

Byzantine Pottery from Sparta.—B.S.A. XVII (session of 1910–1911), pp. 23–28 (4 pls.; fig.), R. M. DAWKINS and J. P. DROOP describe the Byzantine pottery found at Sparta. The *graffiato* ware is divided in accordance with the designs and technique into five classes, the painted ware into two.

The incised designs are hatchings, spirals, animals, mostly birds, and floral designs. The glaze varies from bright yellow to dark brown and greenish. The white slip is sometimes cut away so that the red of the clay is visible. The painted vases show green, brown, blue, and black on a light ground.

The Mosaics of St. Demetrius. — In Mon. Piot, XVIII, 1910, pp. 225-247 (6 pls.; 2 figs.), C. Diehl and M. Le Tourneau discuss the mosaics of the church of St. Demetrius at Salonica, calling attention especially to their excellence. Those dating from the sixth century are the best of that time.

The Paintings of Toqale Killissé in Cappadocia. — In R. Arch. XX, 1912, pp. 236–254 (7 figs.), G. DE JERPHANION describes the paintings in the church of Toqale Killissé in Cappadocia. He corrects previous readings of the inscriptions. By means of these and by comparison with paintings at Geurémé, a few miles distant, he arrives at the conclusion that the paintings at Toqale date from the reign of Nicephoros Phocas, A.D. 963–969.

The "Renaissance" of Byzantine Painting. — In R. Arch. XX, 1912, pp. 127–142, Théodore Schmidt discusses the so-called Renaissance of Byzantine painting in the fourteenth century, best exemplified by the mosaics of the Kahrie-djami at Constantinople. He finds that there was no real renaissance, but that the painters used traditional methods and figures of religious art side by side with attempted imitation of reality. This latter method developed in profane art, and in the mosaics of Kahrie-djami the traditions of religious and profane art are combined.

The Monument of Porphyrios. — In B.S.A. XVII (session of 1910–1911), pp. 88–92, A. M. WOODWARD gives the text of the inscriptions on the monument of the charioteer Porphyrios (see R. Arch. XVIII, 1911, pp. 76 ff.; A.J.A. XVI, 1912, p. 294) in Constantinople. Notes on the metre of the inscriptions in popular Greek and on a recent article by P. Maas ('Metrische Akklamationen der Byzantiner,' Byz. Z. XXI, 1912, pp. 28 ff.) are added by J. B. Bury, pp. 92–94.

John Covel's Account of Mount Athos.—In B.S.A. XVII (session of 1910–1911), pp. 103–131 (7 figs.), F. W. Hasluck publishes the notes on Mount Athos written by John Covel who visited the monasteries in 1677. Some comments are added.

A Byzantine Lead Seal. — In J. Int. Arch. Num. XIV, 1912, pp. 55-60 (2 figs.), K. M. Konstantopoulos discusses a seal attributed by G. Schlumberger to the emperor Nicephoros Phocas and shows that it dates from the end of the eleventh century, and should probably be assigned to Nicephoros Melissinos.

Catalogue of the Van Stolk Collection.—A catalogue of the Van Stolk collection gives a brief description of over one thousand objects, most of which are of considerable interest. They comprise sculptures, pictures, carpets, embroideries, metal work, stained glass, furniture, etc. The illustrations add greatly to the value of the catalogue. J. B. van Stolk signs the introduction. [Catalogue des Sculptures, Tableaux, Tapis, etc. formant la collection d'objets d'arts du Musée van Stolk, Janstraat 50 Harlem. La Haye, 1912, Martinus Nijhoff. 134 pp.; 5 colored pls.; 302 figs. 12mo. 1 fl.]

Depopulation in the Aegean Islands. — In B.S.A. XVII (session of 1910–1911), pp. 151–175 (3 figs.), F. W. Hasluck discusses the *Isolarii* of Antonio di Millo (1582) and Francesco Lupazzolo (1638) and the condition of the Aegean Islands after the Turkish conquest. Many islands had been

nearly or quite depopulated, but settlers were brought to some of them by the Turks. Changes of population were caused later by the Cretan war of 1645–1669, the Orloff revolution period (1770–1774), and the Greek War of Independence (1821–1830). Such changes involve also changes of dialect. An appendix (pp. 176–181) deals with the eruptions of Santorin, 1457–1637.

Heraldry of the Rhodian Knights.—In B.S.A. XVII (session of 1910-1911), pp. 145-150 (3 figs.), F. W. HASLUCK discusses two marble slabs with armorial bearings, which were formerly in the castle of St. Peter (built in 1344) at Smyrna. They are now built into the circular court of the prison. The arms are those of De Heredia, the Order of St. John, the Papacy, d'Allemagna, Des Baux(?), and one is unknown.

Genoese Heraldry and Inscriptions at Amastra.— In B.S.A. XVII (session of 1910–1911), pp. 132–144 (7 figs.), F. W. Hasluck describes and illustrates the Genoese coats of arms and inscriptions at Amastra (Amastris, Samastro) on the Black Sea and, in two appendices, Genoese monuments at Trebizond and Pera.

The Problem of the Origin of the Remains at Meshetta.—In Z. Assyr. XXVII, 1912, pp. 129–138, R. Brünnow contests the theory recently expressed by Herzfeld that the buildings at Meshetta are of Omaiyadian origin, and maintains that these edifices are of pre-Mohammedan origin, and must belong to the fifth or possibly the sixth century.

Christian Remains in Tunis. — In Mél. Arch. Hist. XXXXII, 1912, pp. 3–26, René Massigli discusses (1) a baptismal font of the sixth century from Sidi Mansour in Tunis, analogous to the baptistères à rosace previously



FIGURE 6. — PSALTER 'Aγίου Τάφου, Fol. 108 vo., Fol. 109 ro.

described by Gauckler; and (2) two small basilicas, near Hamman Lif and Hanchir Rhiria, with marked peculiarities, such as a transept in the latter.

The Psychostasis in Christian Art. — In Burl. Mag. XXII, 1912, pp. 94-105, Mary P. Perry discusses the psychostasis in Christian art. She

treats the Egyptian representations, points out the absence of the *motif* in far eastern art save where it has been introduced through Christian influence, and notes the existence of the idea in Persian and Mohammedan mythology. Greek examples of the weighing of earthly destinies are found on the "Ludovisi Throne" and in several vase-paintings. The weighing of souls appears in Byzantine art as early as the eleventh century, but an earlier example can probably be found in the Muirdach Cross of the tenth. St. Michael is the regular "weigher" in the Christian representations. The flasks that the devils carry in the mosaic of Torcello seem to stand for temptations, or sins. The figures in the scale-pans represent the good and evil sides of the dead, who sometimes appears as a separate figure watching the process.

An Early Type of Psalter Illustration in the "Aristocratic" Style. — A. BAUMSTARK publishes in *Oriens Christ*, 1912, pp. 107–119, a miniature in a Psalter preserved in the Monastery of the Holy Sepulchre in Jerusalem, ascribed by Papadopoulos to the twelfth century (Fig. 6). It represents the repentance of David, and is executed according to the continuous method, showing Nathan standing in front of the king, and to the right David prostrate on the ground. Comparison with the well-known Psalter in the Bibliothèque Nationale (Paris Gr. 139) seems to show that in the Jerusalem miniature we have a type approaching the original form of the scene, which was afterward modified in the Paris Psalter and other manuscripts.

ITALY

The Gnostic Character of the Hypogeum of Trebius Justus. — The hypogeum of Trebius Justus discovered on the Latin Way in 1911, is decorated by a series of frescoes of the latter half of the third century, whose general character may be seen from the accompanying illustration (Fig 7). The occurrence of the Good Shepherd in one of the frescoes points to a Christian element in the decoration, but other details, and the Gnostic ring to some of the graffitti, make it likely that the sepulchre belonged to a Gnostic sect representing one of the many syncretisms between Christianity and the beliefs of Egypt. This is the conclusion reached by O. MARUCCHI in his article on the hypogeum in N. Bull. Arch. Crist. 1912, pp. 83–99. The graffitti are published ibid. pp. 43–56, by P. Franch de Cavalleri.

The Catacombs of S. Callixtus.—In J.R.S. I, 1911, pp. 107-127, Miss E. R. Barker gives a general account of the topography of the catacombs of S. Callixtus in the light of the discoveries of the last ten years.

S. Maria Nuova at Viterbo and S. Francesco Di Vetralla. — Apropos of the recent restoration of the church of S. Maria Nuova at Viterbo, A. Muñoz contributes to Boll. Arte, VI, 1912, pp. 121–146, a description of the church and its monuments, as well as the neighboring and similar church of S. Francesco di Vetralla. Both date ca. 1100. The most interesting features of the first are: a fresco of 1293 representing the Crucifixion, to which has been added a figure of Sta. Barbara of the fourteenth; and another fresco of the fourteenth century representing the Madonna with St. John Baptist, with a Christ bearing the Cross in a separate compartment to the right. S. Francesco di Vetralla contains several works

of importance, e.g. the tomb of Briobris by Paolo da Gualdo, a fresco of the school of Benozzo Gozzoli representing St. Ursula and her virgins, and a marble ciborium of the fifteenth century.

Giovanni Da Bologna. — In Rass. d' Arte, XII, 1912, pp. 103-106, F. FILIPPINI seeks to prove from documentary evidence and the style of the



FIGURE 7. - FRESCO FROM THE HYPOGEUM OF TREBIUS JUSTUS.

authentic paintings of Giovanni da Bologna that he was not educated in the Venetian school, as Moschetti maintains, but received his first training in Bologna itself.

FRANCE

The Earliest Ambulatories. — In Mh. f. Kunstw. V, 1912, pp. 358-376, E. Gall publishes a second article on the history of the ambulatory. In this he subjects the dates of the earliest examples to a severe critique with the result that none appear to be earlier than that of St. Martin at Tours, which was assigned to the early eleventh century in his first article (see A.J.A. 1912, p. 597). His conclusions may be seen from the table annexed to the article, in which the dates of the buildings are given:

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997-1015 . . . Tours . . . St. Martin.

Ca. 1000 . . . Clermont-Ferrand . . . Cathedral.

Ca. 1010-1029 . . Orléans . . . St. Aiguan.

1020-1024 . . Chartres . . Crypt of Cathedral.

Ca. 1030 . . Auxerre . . Crypt of Cathedral.

Ca. 1050 . . Le Mans . . Notre-Dame-de-la-Couture.

Ca. 1052 . . Vignory . . St. Etienne (copy of Chartres.)

1070-1073 . . Canterbury . . St. Augustine.

Ca. 1080 . . St. Savin.

Ca. 1090 . . Le Mans . . St. Julien-du-Pré.

1095 . . Cluny (choir).

1096 . . Toulouse . . St. Sernin.

1097 . . Nevers . . St. Etienne.

1099 . . Poitiers . . Ste. Radegonde.
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The Apocalypse of Angers.—In B. Soc. Ant. Fr. 1912, pp. 229-234 is a communication by L. de Farcy on the tapestry representing the Apocalypse which is preserved in the cathedral of Angers. He identifies the figure which appears on each piece, a philosopher-like person meditating over a book, as Louis I of Anjou, who had the tapestries made. The arms on the escutcheons upheld by the angels are those of the Order of the Cross, and it is probable that the tapestry was originally made to be presented to this order and figured in its chapter room, probably in the castle of Angers. P. Durrieu (ibid. pp. 234-235) disagrees with De Farcy in regard to the philosopher figures, seeing in them the customary Jewish prophets often introduced into such connections in the Middle Ages and the Renaissance.

Two Manuscripts in the Musée Jacquemart-André. — The collections of M. André, recently given to the French nation in the form of a special museum, are the subject of a series of articles in the Gaz. B.-A., of which the first (VIII, 1912, pp. 85-96) is from the hand of Count P. DURRIEU, and describes the two manuscripts of the collection, the Heures of Jeanne of Savoy, and the Heures du Maréchal de Boucicaut. The former is of the early fourteenth century and is the product of that Parisian school of miniaturists which illuminated a number of well-known manuscripts, among them the Franciscan breviary in the possession of Mr. J. P. Morgan. It is adorned with eighty miniatures. The other belongs to the end of the fourteenth and the beginning of the fifteenth century, contains forty-three illustrations of the finest character (one added by a later possessor), and is assigned by the writer to a painter of Bruges, who lived at Paris and travelled in Italy, having done a "livre d'heures" for the Visconti of Milan which is now in Turin. This painter, whom Durrieu identifies with a certain Jacques Coene, shows himself a lover of landscape of remarkable invention, considering that he antedates the Van Eycks, and a portraitist of power.

Primitives and their Signatures. — In R. Arch. XX, 1912, pp, 77-87 (12 figs.), F. DE MÉLY discusses some of a series of portraits contained in Velley's Histoire de France, published in the eighteenth century. The portraits were derived by Velley from earlier collections, one of which was that of Schryver (published at The Hague in 1684). Portraits by Jan van Eyck,

Roger of Bruges (not Van der Weyden), and Mostaert in the "Musée Scriverius" and by Rubens in Vienna are discussed and identified.

Pierre de Montereau and Notre Dame de Paris. — In M. Soc. Ant. Fr. LXXI, 1911, pp. 14–28, H. Stein publishes a newly discovered document to prove that after the death of Jean de Chelles not later than 1160, Pierre de Montereau had charge of the construction of the cathedral of Notre Dame de Paris, and probably continued in charge until his death in 1267.

The Sainte-Chapelle in the Bois de Vincennes.—In M. Soc. Ant. Fr. LXXI, 1911, pp. 225–287, M. Roy publishes a series of documents which throw much light on the completion of the Sainte-Chapelle in the Bois de Vincennes under Henry II.

Lead Seals in France. — In M. Soc. Ant. Fr. LXXI, 1911, pp. 165-182 (5 figs.), J. Roman discusses the origin of the lead seal, and its use in France from its first appearance in the eighth century to the fifteenth century.

GERMANY

The Town Walls of Münstereifel.—The important town walls of Münstereifel, not far from Bonn, together with measures for their preservation, are described and illustrated by CLEMEN in Bonn. Jb. 1911, pp. 31-42 of the "Bericht" (pl.; 10 figs.).

The Restoration of Trier Cathedral. — In Bonn. Jb. 1912, pp. 53-73 of the "Bericht" (3 pls.; 16 figs.), T. Wiegand publishes a full account of the restoration of the cathedral of Trier during the years 1901-1909.

GREAT BRITAIN

Further Parallels to early Anglian Ornament. — In Burl. Mag. XXI, 1912, pp. 193-194, Sir Martin Conway cites parallels to the ornament on the Ruthwell cross (discussed in A.J.A. 1912, p. 598) in the decoration of several crosses and cross-shafts of the British Isles. He points out several interesting Coptic affinities in addition to those cited by Lethaby and adds some parallels drawn from early sculpture in Switzerland.

Death in English Art and Poetry.—In a preliminary article on the Dance of Death in English Literature and Poetry, W. Storck discusses the origin and development of the legend of "The Three Living and the Three Dead." The story took literary form in France during the thirteenth century. The addition of the detail of representing the three living kings as hunting seems to be later, and it was only in the fourteenth century that the story becomes the vision of the hermit Macarius. The legend made its way into England by way of the Channel Islands, and seems to have spread itself especially over the south of the island. In the earlier type of pictorial representations the three living kings are represented as merely standing facing three skeletons; later on they appear on horseback, sometimes accompanied by squires and dogs. (Burl. Mag. XXI, 1912, pp. 249–256.) A second article (ibid. pp. 314–319) gives a catalogue raisonné of the representations of the scene in English church frescoes and manuscripts.

The Date of the Ruthwell and Bewcastle Crosses. — Careful examination of the crosses at Ruthwell and Bewcastle, comparison of their carvings and inscriptions with other works, and due regard to the facts of history lead to the conclusion that the two crosses are works of the twelfth

century, and that their erection is due to the influence of King David of Scotland (1107-1153). (ALBERT S. COOK, *The Date of the Ruthwell and Bewcastle Crosses*, Transactions of the Connecticut Academy of Arts and Sciences, Vol. 17, pp. 213-361. New Haven, 1912, Yale University Press. 149, iii pp.; 34 figs.; 8vo.)

RENAISSANCE ART

GENERAL AND MISCELLANEOUS

Architecture in Northern Painting.—A. GRIESEBACH's second paper on architecture in northern painting in Mh. f. Kunstw. V, 1912, pp. 254–272, comprises an interesting treatment of the architectural backgrounds of Dutch, Flemish, and German masters of the fifteenth and sixteenth centuries. From the beginning of the fifteenth century Romanesque begins to supplant Gothic in the backgrounds, and has practically replaced it by the middle of the century. The last of the older masters to reproduce Italian buildings are the brothers De Limbourg, and the first northern painter to use them again is Foucquet. The clearest attempt at realism is in representations of Jerusalem, where the Dome of the Rock is more or less faithfully reproduced, though the rest of the city conforms to the prevalent Gothic or Romanesque. With the sixteenth century begins the Gothic baroque, a fantastic mixture of Italian Renaissance, Romanesque, Gothic, and Oriental, which far transcends the Roccoo of contemporary building.

The Picture Gallery of the Hermitage. — L. RÉAU'S first article on the picture gallery of the Hermitage in Gaz. B.-A. VIII, 1912, describes the gradual formation of the gallery, and the chief treasures of the Italian and French schools. Among the less known paintings which he cites are a tondo, a Virgin adoring the Child, attributed by Berenson to his Amico di Sandro, and by De Liphart to Filippino, a Portrait of a Young Girl by Francesco Melzi, and a Deposition by Paolo Veronese.

Identification of a Van Dyck Portrait.— A. VAN DE PUT identifies the subject of the Van Dyck portrait in the Dulwich Gallery with Emanuel Philibert, Prince of Oneglia, third son of Charles Emanuel I of Savoy, and governor of Sicily, 1621–1634 (Burl. Mag. XXI, 1912, pp. 311–314).

Studies in the Art of Rubens. — In Jb. Kunsth. Samm. 1912, pp. 257–297, F. M. HABERDITZL publishes a monograph on the art of Rubens. The writer first treats the youthful work of the painter, and then takes up his relation to the antique, classifying his paintings in this regard into (1) a group wherein antique marbles have given the painter the central motif of the picture, which is then surrounded by fantastic detail of his own invention; (2) a group in which he has drawn from the antique his scheme of composition; (3) the paintings in which the antique motif has been thoroughly transformed in the sense of the baroque.

Della Robbias in America. — The first of a Princeton series of Monographs in Art and Archaeology presents in the form of a descriptive catalogue an account of the seventy-three works of the Della Robbia school of sculpture, which are now in the United States, for the most part in private collections. Separate divisions of the book treat of the works of Luca, Andrea, and Giovanni della Robbia, and miscellaneous Robbia works, glazed

terra-cotta reliefs which cannot be assigned to any one member of the school. [Allan Marquand, Della Robbias in America, Princeton, 1912, Princeton University Press. xiv, 184 pp.; 72 pls.; 4to; \$4.50 net. Princeton Monographs in Art and Archaeology 1.]

Jettons at the University of Liverpool. — In Ann. Arch. Anth., F. P. Barnard publishes 120 jettons or counters for use on the counting-board in the possession of the University of Liverpool.

ITALY

The Burlington Exposition of Venetian Painting.—An article on the Burlington exposition of Venetian painting appears in Rass. d' Arte, XII, 1912, pp. 88–92, from the hand of T. Borenius. The most important of the pictures discussed are: a Madonna by Crivelli, another Madonna by Antonello da Messina; two mythological scenes attributed to the Pseudo-Boccacino; and an Annunciation by Bissolo. All these are from the Benson collection. The "Giorgiones" shown at the exhibition failed to convince the writer.

The Campanile in Venetian Painting. — In Rass. d' Arte, XII, 1912, pp. 49-58, G. Fogolari reviews the use of the Campanile in the backgrounds of the painters of Venice, pointing out its symbolical character as the type of the city. The painters cited in this connection are Veronese, Gentile Bellini, Sebastiano del Piombo, Vittore Carpaccio, Titian, Bonifacio Veronese, Tintoretto, Francesco da Ponte, and a number of later artists.

The Chronology of the Works of Dosso Dossi. — Youthful works of Dosso Dossi, done between 1500 and 1505, showing the style of the quattrocento, and connected with some particular Ferrarese master, are not to be found. After 1505, we find some rather unskilful, but independent paintings. With 1513 begins the first "Master-style" of the artist, showing more refinement, an increased liveliness of posture, and a subdued coloring due to the growing influence of the Venetians. To this period belong the two Circe pictures (Benson collection and the Borghese gallery), the so-called "Fool" of Modena, and the Capitoline Holy Family. The second "Master-style" in which the lively temperament of the master is allowed full play, begins with 1522. (Henriette Mendelsohn, Jb. Preuss. Kunsts. XXXIII, 1912, pp. 229-251.)

Filippo Lippi's Portrait. — In Burl. Mag. XXI, 1912, pp. 194–200, M. Carmichael attacks the accepted interpretation of the "Monk's head" in Filippo's Coronation in the Academy as the portrait of the artist, showing that the dress of the figure is not that of the Carmelite order to which Filippo belonged, that the inscription "Is perfect opus" refers to the donor, not to the painter, and that the features do not tally with the bust of Lippi which his son had carved on his tomb at Spoleto. The ecclesiastic in the picture is, therefore, to be regarded as the Canon of S. Lorenzo, Francesco Maringhi, who ordered the Coronation in 1441.

Ancient Sculpture in Rome in the Renaissance. —In the first volume of his Le Statue di Roma, Dr. HÜBNER undertakes to make a list of the ancient statues in Rome in the time of the Renaissance. He employs literary sources such as the descriptions of Rome by travellers; copper plates engraved in the sixteenth century; and the sketch-books of artists of the

time; and discusses the collections of ancient sculpture in Rome in the fifteenth and sixteenth centuries. [Le Statue di Roma. Grundlagen für eine Geschichte der antiken Monumente in der Renaissance. Von Paul Gustav Hübner. I: Quellen und Sammlungen. Leipzig, 1912, Klinkhardt und Biermann. 125 pp.; 14 pls.; 4to. M. 22.50.]

Donatello's David and Praxiteles' Eros. — In Mh. f. Kunstw. V, 1912, pp. 303–310, A. Hahr defends the hypothesis that the motif of the bronze David of Donatello is inspired by an antique statue of the type of Praxiteles'

Eros, possibly by the Eros from Centocelle in the Vatican.

Leonardo's David. — Rass. d' Arte, XII, 1912, pp. 128–132, contains a posthumous article from the pen of E. Solmi (d. July 30, 1912) in which he points out that the name of Leonardo was mentioned as a candidate for the task of carving the block of marble which afterward produced the David of Michelangelo, and identifies a sketch of a figure of David by Leonardo (Louvre) as that artist's design for the statue which he proposed to make. The writer rejects the usual interpretation of the sketch as a copy of Michelangelo's work on the ground that it is too inaccurate as a copy, and of too early a date.

The Weber Madonna and the Imperator Mundi.—H. Uhde-Bernays discusses the relations of the Weber Madonna and the Imperator Mundi of Mantegna in Mh. f. Kunstw. V, 1912, pp. 273–278, discovering that their composition is carried on in a mathematically identical plan.

A Madonna by Giovanni Bellini.— Detlev Freih. von Hadeln describes in Z. Bild. K. XXIII, 1912, pp. 289–292, a Madonna by Giovanni Bellini recently transferred from a private collection in England to the Nemes collection at Budapest. The donor's portrait is curiously inserted behind the figure of the Madonna, and the latter gazes out directly at the spectator. The same composition, minus the donor, is repeated in a Madonna of Francesco Tacconi in the National Gallery, and another of the school of Bellini in the Scalzi at Venice. But in these pictures the gaze of the Virgin is lowered, and for this and other reasons, the writer believes that there was another Madonna from the painter's hand which gave the Virgin such downcast eyes, and that this picture served as model for those of Tacconi and the Scalzi, while it was modified by Bellini himself into the form represented by the Madonna of Budapest.

The Madonna Bénois, its Replicas and Date. — The attribution of the Madonna Bénois in the collection of Mme. Bénois of St. Petersburg to Leonardo is supported by many critics, and is the starting point of the study which G. Gronau dedicates to the picture in Z. Bild. K. XXIII, 1912, pp. 253–259. He assembles the replicas of the painting, some of which are from the hands of Dutch and Flemish painters, points out again the connection with it of the drawing in the British Museum, and shows, from the fact that it is copied by a Florentine master early in the sixteenth century, while there are no replicas from the hands of the Lombard painters, that the picture must still have been in Florence about 1510. Lorenzo di Credi's copy in Dresden must have been made ca. 1479, and many things in the picture show that it is a product of Leonardo's period of apprenticeship with Verrocchio. In all probability it is one of the Madonnas which the inscription on one of Leonardo's sketches in the Uffizi tells us he began in 1478.

Marco Marziale. — In Jb. Preuss. Kunsts. XXXIII, 1912, pp. 122-148,

B. Geiger completes his monograph on Marco Marziale, the partial purpose of which was to disprove, both for him and other North Italian painters, the ultramontane influence which critics often see in his work. The peculiarities which give rise to this misconception are due to local syncretisms.

Palma Vecchio the Painter of "Temperance."—The "Temperance" in the Diploma Gallery of the Royal Academy in London has been ascribed to Giorgione. This attribution is no longer seriously considered, but the picture has been given by Berenson to Beccaruzzi. Sir Claude Phillips in Burl. Mag. XXI, 1912, pp. 270–272, argues that the style points rather to Palma Vecchio.

Pictures by Bartolomeo Veneto.—Apropos of the Madonna in the Landesmuseum at Münster, which G. Pauli recently suggested was a forgery (see A.J.A. 1912, p. 459), H. Cook points out in Rass. d' Arte, XII, 1912, pp. 77–78, that the use of a cut by Lucas van Leyden in the group of the mounted king and attendants in the background points to Bartolomeo Veneto, who is known for the employment of northern cuts in his pictures. Further confirmation of the attribution is afforded by a comparison with Bartolomeo's Madonna in the Benson collection. In the same article, G. CAGNOLA adds to the list of the painter's works a Madonna in the collection of Comm. Bozzotti in Milan.

Problematical Pictures. — In Boll. Arte, VI, 1912, pp. 291-302, G. Bernardini discusses a series of interesting pictures of which the authorship is still a matter of conjecture. The first, a Madonna with Saints in the Lucca Gallery he assigns, with reservations, to Cosimo Rosselli. The Coronation of the Virgin in the same gallery is an imitation of a similar painting in S. Frediano by Francia, and is to be assigned to some Florentine or Lucchese painter in the manner of Ghirlandaio. A Visitation in the Lucca Gallery betrays the manner of Neroccio. A follower of Piero di Cosimo must have done the Madonna and Saints in the Museo di S. Marco in Florence, there ascribed to Bugiardini. Another Madonna with Sts. Nicholas and Michael in the same collection is evidently a fourteenth-century piece worked over by a follower of Ghirlandaio. The Virgin giving her girdle to St. Thomas in the Cenacolo di S. Apollonia in Florence is of the school of Filippino Lippi. An Adoration of the Magi in the Queini Stampalia collection in Venice shows the manner of Rizo di S. Croce. The Betrothal of St. Catherine in the Concordi Gallery at Rovigo belongs to the school of Giovanni Bellini.

The Authorship of Venus Disarming Love. — The Venus disarming Love in a private collection in Strassburg has been ascribed to Correggio. The technique, however, and comparison with works of Luca Cambiaso, especially a drawing of the same subject, make it clear that the latter is the author of the painting. (H. Voss, Mh. f. Kunstw. V, 1912, pp. 321–322.)

Parrasio Micheli. — DETLEV FREIH. VON HADELN contributes to Jb. Preuss. Kunsts. XXXIII, 1912, pp. 149–172, a monograph on the life and œuvre of the sixteenth-century Venetian painter Parrasio Micheli.

Notes on Italian Medals.—G. F. HILL contributes to Burl. Mag. XXII, 1912, pp. 131–138, a series of notes on (1) a number of unassigned pieces of Florentine origin; (2) a medal with the jugate heads of Girolamo, Count of Panico, and Pompeo Ludovisi, by Cavino; and (3) a medal of Girolamo Vida by Tegnizia.

SPAIN

Spanish Pictures in the Possession of the King of Roumania. — In Z. Bild. K. XXIII, 1912, pp. 213-218, V. von Loga describes a series of important paintings existing in the royal castles of Pelesch and Bucharest: a "Portrait of an Unknown Man," by Greco; a Coronation of the Virgin by some Castilian master; a Flight into Egypt by El Mudo; a Pentecost by Luis Tristan; four religious subjects by Greco, an Adoration of the Magi, a Sposalizio, a Holy Family, Christ parting from His Mother, and The Ecstasy of the Magdalen, by José Antolinez.

A new Attribution of the Borro Portrait. - The Borro portrait in the Berlin gallery which is supposed to represent the Italian general Alessandro del Borro has been variously assigned to Velasquez, Tiarini, Vermeer van Delft, and Andrea Sacchi. A. L. MAYER, starting from the assumption that the painter must be a Spaniard, proposes to assign the picture to Juan Carreño de Miranda on the basis of similarities with works of this master. (Mh. f. Kunstw. V, 1912, pp. 343–345.)

Bartolomé Bermejo's Triptych at Acqui. — The triptych representing the Madonna and Child seated on a saw, together with a donor and various minor scenes and figures, which is preserved in the cathedral at Acqui in Italy is signed: Bartolomeus Rubeus. Its earlier publisher, Pellati, was in doubt whether to identify the author with the Cordovan painter Bermejo (i.e. the "red" — Rubeus), or with a certain Rosso of the Ferrarese school. J. PIJOAN contributes to Burl. Mag. XXII, 1912, pp. 17-25, a very complete review of the Bermejo question and shows by the evident traces of Spanish character in the triptych, that it too is to be added to the œuvre of the Spanish painter. The saw probably has reference to the family of the donor, the name Sierre, or Serra, being common in the Catalan country.

FRANCE

Sienese Artists and the Très Riches Heures of the Duc de Berry. -In Mon. Piot, XVIII, 1910, pp. 183-224 (pl.; 38 figs.), F. DE MELY shows that the illuminations in the Très Riches Heures of the Duc de Berry are not wholly the work of French artists. There is documentary evidence of Sienese artists being in the Duc's employ, and furthermore Siena is represented in the background in the scene representing the adoration of the Magi. On the border of the garment of one of the horsemen in this scene is the name FILIPPVS, probably to be identified with "Filippo di Francesco di Piero di Bertuccio" who was married in Siena in 1394 and was presumably a miniature painter.

The Zodiac of the Heures du Duc de Berry. — In an article in Gaz. B.-A. VIII, 1912, pp. 195-201, F. DE MELY contends that the figures in the miniature which passes under the name "Zodiac" in the Très Riches Heures in the Musée de Condé at Chantilly are female, not male. Their curious arrangement, back to back, may be explained on the hypothesis that they are copied from two of the figures in the Roman group of the Three Graces at Siena. If so, we have here another evidence of the influence of Siena in

the miniatures of the manuscript.

The School of Nice. — L. H. LABANDE continues his treatise on the painters of Nice in the fifteenth and sixteenth centuries in Gaz. B.-A. VIII, 1912, pp. 63–74 and 151–172. The first article is concerned chiefly with François Bréa, the second discusses the unassigned pictures in the recent exposition of local painting held at Nice. The most important of the pictures discussed are: an altar piece dedicated to the Magdalen from the church of Contes, 1520–1530; a "Damnation of Sinners," early sixteenth century, in the church of Bar; a "Man of Sorrows" of the same period in the church of Biot; and a curious Crucified Christ, Madonna, donor and Saints from the chapel of Penitents at Puget-Théniers, dated 1525. A brief article on the Exposition appears also in Rass. d'Arte, XII, 1912, pp. 81–87, contributed by G. CAGNOLA.

A Portrait of Michelle de France. — In the collection of Baron von Bissing in Munich is a portrait which we learn from the inscription on the original frame is the likeness of Michelle de France, wife of Philip the Good, duke of Burgundy. Philip became duke in 1419, and his wife died in 1422, which dates the portrait securely 1419–1422. The traditional attribution is to the Van Eycks, but the style of the portrait is against this. The picture is rather the work, or a copy of the work, of a Burgundian painter, probably in the atelier of Henri Bellechose, influenced by the Flemish school. (H. NASSE, R. Arch. XIX, 1912, pp. 406–412.)

GERMANY

The Career of the Hausbuchmeister. — K. F. LEONHARDT and H. T. Bossert contribute to Z. Bild. K. XXIII, 1912, pp. 238–252, the last of the series of articles on the Hausbuchmeister. The general result of their studies is the establishment of the artist's career on several debated points. His name was Heinrich Mang, son of the painter Mang, called Schnellaweg, and he was probably born about 1450 in Augsburg. At the death of his father, in 1472 or 1473, he removed to Ulm. His activity in Suabia lasted at least eight years, after which he passed a long period on the Rhine. The late drawing for Heinrich Heinzeler, which certainly dates after his second trip to the Netherlands of 1488, seems to show that his career ended near his former home.

Dürer Studies. — In Heft 4 of Jb. Kunsth. Samm. 1912, pp. 183–227, J. MEDER discusses Dürer's journey to the west of Germany in 1490–1494, his first trip to Venice (1494–1495), and the Adoration of the Holy Trinity in Vienna. In the first discussion the writer deduces Dürer's route through the west of Germany from the contemporary map of Germany published by George Glockendon of Nürnberg, and the drawings and wood-cuts that can be assigned to this period. His Venetian route is similarly determined, and a classification made of the works produced by Dürer during his stay in Italy, together with the drawings after Italian masters. With regard to the Holy Trinity in Vienna, Meder shows that motifs of the frame are derived from the terra-cotta altar of Giovanni da Pisa in the Eremitani at Padua while the arrangement of saints around the central group is drawn from the French mediaeval scheme of the Last Judgment, particularly the adaptation thereof in the tympanum of the church of St. Laurence in Nürnberg.

A Lost Calvary by Dürer. — The "Way of the Cross" in S. Maria della Passione in Milan, by Pietro da Bagnaia, is a picture so close to Dürer in many of its single figures and groups, and especially in its general composi-

tion as to make it certain that we have in it a copy or adaptation made a hundred years later by the Italian painter of a lost drawing of Dürer's. (H. Voss, Burl. Mag. XXI, 1912, pp. 213–219.)

The Birthplace of Veit Stoss.—P. Ettinger contributes to Mh. f. Kunstw. V, 1912, 323–325, a résumé of an article by Dr. Jan Ptasnik in a Krakau periodical, in which the latter reviews the evidence regarding the nationality of Veit Stoss. He regards as probable the hypothesis that the Fritz Stoss mentioned in the Nürnberg Bürgerbücher as having attained citizanship in 1476 is identical with Veit Stoss, the unfamiliarity and abbreviation of the praenomen having led to confusion. The Polish names he gave his children, the Polish character of his name itself, and the suspicious nature of the evidence in favor of his Nürnberg origin, all militate in favor of considering the sculptor a Pole.

AMERICAN ARCHAEOLOGY GENERAL AND MISCELLANEOUS

Aboriginal Use of Turquoise. — In Amer. Anthr. N. S. XIV, 1912, pp. 437–466 (4 pls.), J. E. Pogue treats of the aboriginal use of turquoise in North America, — use in Mexico and Central America, as attested by historical evidence, as attested by objects (masks, pendants, ornaments, mosaics of various sorts); ancient use of turquoise in the Northwest as attested by historical evidence and by objects, ornaments, mosaics, etc.; Zuñi, Hopi, Keres, Pima, Navaho, Ute, present use and appreciation are considered. The author is engaged on a work in which the attempt will be made "to present the available information bearing on the history, ethnology, mythology, and folk-lore, as well as the mineralogy, geology, and technology of turquoise."

Culture Inter-relations of North and South America. —In Journal de la Société des Américanistes de Paris, N. S. IX, 1912, pp. 19–25, E. NORDENSKIÖLD treats of the anthropogeography of America, arguing that in the extreme south of South America and in certain regions of North America there still exist remains of an older culture, preserved there uninfluenced by the cultures of Mexico, Central America, the Andes, etc., or not yet quite effaced by these. As evidences of such culture he cites fire-making with pyrites, quivers, harpoons, bolas, sewn-bark canoes, "ladder-cradles," certain forms of the arrow, and huts with Gangtür. He also seeks to trace evidences of the influence of Asiatic-Melanesian culture in primitive America (clay-ball bow, blow-gun, signal-drum, pan-pipe, suspension-bridge, starheaded stone club, etc.). The same article appears in Swedish in Ymer, XXXII, 1912, pp. 181–187.

Indian Calendar Systems. — In Rev. Scientifique (Paris), 5 Oct. 1912, pp. 424–428, is an article by L. Spence entitled 'Les systèmes de calendrier des tribus indiennes de l'Amérique,' the material in which seems to be the same as that in the author's article on 'Calendar (American),' in Hastings' Encycl. Relig. and Ethics, Vol. III (1910), pp. 65–70.

UNITED STATES

Stone Age among Eastern and Northern Tribes. — In Amer. Anthr. N. S. XIV, pp. 391-395, Alanson Skinner discusses the traces of the Stone Age among the eastern and northern tribes, pointing out the too sweeping

character of the assertion of certain archaeologists "the historic Indians did not make stone arrow-points, but used bone, antler or some other substance to the complete exclusion of stone." He cites instances of the use of stone (actual or remembered) from the Iroquois of New York (Senecas, chipped arrow-points; flint boiled to make it flake more easily, - a custom known to Menomini), Menomini of Wisconsin, Eastern Cree (chipped flint by percussion; used grooved stone axes), Saulteaux Ojibwa, Minnesota Ojibwa, Winnebago, Abenaki (stone scrapers, etc.). Stone pipes are still used by Eastern Cree, Ojibwa, Winnebago, Menomini, and Tuscarora. Pottery is no longer made by the Iroquois, and the Eastern Cree, who never used it, "preferred stone vessels pecked into shape." The pottery process of the Menomini is described on p. 194. The writer calls attention to the fact that "stone was not the only material worked by the aborigines of the Stone Age." Really, "the use of stone was comparatively limited; edged tools, hammers, ornaments and some weapons were the principal articles made of this material, whereas the bulk of the property in the hands of the savage was constructed of wood, clay, skin or fabric."

Palaeolithic Artifacts. — In Rec. Past, XI, 1912, pp. 174–178 (fig.), N. H. WINCHELL calls attention to a collection of aboriginal stone artifacts now in the museum of the Historical Society of Minnesota, discovered by the late J. V. Brower in 1901–1903, and "referred by him to the Quivira (Wichita) natives, who, in his judgment, were far behind the Paunee, their neighbors and kin." The author distinguishes palaeolithic, pre-neolithic, and neolithic specimens. The "palaeoliths" are by him thought to have "antedated the Kansan ice-epoch." By "pre-neolithic" he means those showing a certain semi-patina, which "may be equivalent, as to time, to some of the sub-divisions of palaeolithic human artifacts established in Europe."

Earth Circles in Minnesota. — In Amer. Anthr. N. S. XIV, 1912. p. 403, D. I. BUSHNELL, JR., discusses briefly the origin of certain earth circles in Minnesota and the Dakotas, and cites from Mrs. N. D. White's article on captivity among the Sioux (1862), published in Coll. Minn. Hist. Soc. (Vol. IX), a reference to the throwing up of breastworks, some of them inside of the tipis for defence in time of battle. This, the writer thinks, "explains the origin of some of the small circular earthworks and depressions met with in Minnesota and the Dakotas." Some depressions, e.g. on the top of a hill near Bismarck, North Dakota, reported by G. F. Will in Amer. Anthr. N. S. XII, 1910, p. 58, have evidently resulted from some primitive "fortifications."

Ruins of Puye, New Mexico. — In Am. Antiq. XXXIV, 1912, pp. 37-40 (2 pls.), under the title, 'The Dawn of Architecture,' F. J. Koch summarizes some of the investigations of E. L. Hewett in the Puye ruins on the Jemez plateau. According to Koch "within a radius of half a mile from the ruined pueblo may be seen illustrated every step in the evolution of architecture; the wind-worn cave, the cave excavated by human toil with natural front wall, the cavate lodge with artificial front wall, the building of three stone walls hugging the cliff, the isolated four-wall dwelling for a single family, and the great terraced communal pueblo for the housing of a population of thousands." Ibid. pp. 122–127 (3 pls.), A. H. Thompson describes a visit to the ruins of Puye and gives an account of the excavations of the American School of Archaeology: "Puye is a fine example of the

ancient culture of the region, for here everything characteristic is found in every form of house building, sanctuaries, pictographs and symbolic decorations, implements, pottery, and utensils, all following a well-defined order."

The Tewa Game of Cañute. — In Amer. Anthr. N. S. XIV, 1912, pp. 243–286 (pls.; 9 figs.), J. P. Harrington discusses the Tewa game of cañute as studied at the pueblo of San Ildefonso, New Mexico. The most interesting feature of the game is the series of figures made by the dealers in arranging the four cylindrical hollow sticks on the dirt pile. Twelve of these figures represent celestial objects, seven, animals, seven, geographical subjects, ten, the human body or some part of it, seven, houses, seven, weapons, and seven, objects used in religious dances. The names of the sticks are discussed, as well as the actual playing of the game, which seems to have Indian and Mexican elements.

Tewa World-quarter Shrine in the Jemez Mountains. — In Rec. Past, XI, 1912, pp. 159–173 (3 pls.; 6 figs.), W. B. Douglas describes a shrine (enclosure, depression, altar, primary and secondary prayer-sticks, etc.), on the apex of a peak in the Jemez Mountains, New Mexico. This world-quarter shrine of the Tewa Indians belongs archaeologically to the Puye section of the Jemez plateau.

Pre-Columbian Physical Environment in the Southwest. — In Rec. Past, XI, 1912, pp. 128–141, E. Huntington discusses the physical environment of the Southwest in pre-Columbian days, with special reference to the "Hohokam," whom the author believes to have been a distinctly agricultural people, predecessors of the Pimas, and entirely unrelated to any tribe of modern Indians. The Southern Arizona ruins of Jaynes, Sabino, Charco Yuma, and others in the Santa Cruz valley are described. The writer intends to discuss the topic more in detail in a report to the Carnegie Institution on The Climatic Factor in the Evolution of Arid America.

Iroquois Pottery and Wampum. — In Proc. and Coll. Wyom. Hist. and Geol. Soc. (Wilkes-Barre, Pa.), XII, 1912, pp. 55-68 (3 pls.), W. M. Beauchamp discusses Iroquois pottery in comparison with that of the adjacent Algonkian tribes; also describes briefly the various sorts of wampum, arguing that there was no true council-wampum, or belts, before the Dutch came to New York. The Iroquois perfect pottery is rarer than Algonkian; the vessels of the latter are larger as a rule; and handles are not characteristic features of Iroquois vessels; Iroquois pot-stone vessels present Eskimo forms. He believes that the Iroquois came into the Mohawk valley less than 350 years ago. The influx of European brass kettles seems to have ended a promising style of ornamentation (conventional faces and bodies and allied forms), which were popular among Mohawks, Senecas, and Onondagas from about 1580 to 1620.

The Logan Elm near Circleville. — In Rec. Past, XI, 1912, pp. 264–266 (2 figs.), G. F. Wright calls attention to the fact that the Historical Society of Pickaway County has presented to the State Archaeological and Historical Society of Ohio, the famous "Logan Elm," with several acres of surrounding land. It was under this tree that Logan, son of the Cayuga chief Skikellimus, delivered in 1774 the brief speech which Thomas Jefferson and others have made famous.

Creek Indians as Mound-builders. — In Amer. Anthr. N. S. XIV, 1912, pp. 320-324 (2 figs.), J. R. SWANTON writes of the Creek Indians as

mound-builders with special reference to certain earthworks near the southern edge of the old Creek Nation, Oklahoma. These works appear to have been "the busk-grounds first regularly occupied by the Creek Indians when they moved into this country from Alabama, the one first described being that used by the Tukabatci and the second that of the Kealedji; while the unvisited ovals were the busk-grounds of the Enfaula, Atasi, and other branches of the Creek Indians." The Tukabatci and Kealedji mounds were made "between the time of the removal of the Creeks (1836–1840) and 1871." It thus seems proved that a certain type of earthwork is of Creek origin and the claim of these Indians to have been "mound-builders" is thus far justified.

CANADA

Mastodon Remains in Nova Scotia. — In *Proc. and Trans. Nova Scotia Inst. Sci.* (Halifax), XIII, 1911–1912, pp. 163–174, H. Piers points out that, so far, only a femur and a molar tooth of a mastodon have been discovered in Nova Scotia.

Antiquities of Micmac Indians.—In Proc. and Trans. Nova Scotia Inst. Sci. XIII, 1911–1912, pp. 99–125, H. Piers has "A brief account of the Micmac Indians of Nova Scotia and their remains, including descriptions of dress and ornament, weapons and implements, petroglyphs, etc." No mounds have yet been discovered. There is a typical "Micmac pipe." Two strings of wampum, now in the Provincial Museum, had, doubtless, been obtained by the Micmacs in barter with New England Indians. There are important petroglyphs at Fairy Lake and George's Lake, Port Midway River, all in Queen's County. It is interesting to learn that 331 sheets of tracings of the oldest of these petroglyphs, made by the late George Creed in 1887–1888, are in the Provincial Museum, Halifax. A bibliography of 60 titles is appended.

Examination of Caves in Hants County, Nova Scotia. — In Proc. and Trans. Nova Scotia Inst. Sci. XIII, 1911–1912, pp. 87–94 (2 figs.), W. H. Prest reports on investigations made of Miller's Creek, Frenchman's and Five-mile River caves, in Hants County, Nova Scotia. All may have served temporarily as shelters, but not as permanent human habitations, — this is improbable by reason of their condition and situation.

MEXICO AND CENTRAL AMERICA

Idols of the Great Temple in the City of Mexico. — In Journal de la Société des Américanistes de Paris, N. S. VIII, 1911, pp. 153-171 (fig.), Zelia Nuttall writes of Bishop Zumarraga and the principal idols of the great temple in the city of Mexico, discussing the data in the minutes of the trial in 1539 of the Indian cacique Miguel, or Puchtecatl Tlayloca, before the Inquisition, on a charge of idolatry. The cacique was really tried in an effort to discover where had been hidden the five principal idols of the great temple of Mexico, which had been removed by order of Montezuma after the massacre of the Mexican lords by the Spaniards in May, 1520. The minutes of the trial are preserved in the Public Archives of the city of Mexico and are here largely reproduced. The idols were never found and must still be hidden somewhere near Mexico. They probably represented Huitzilopochtli, Tezcatlipoca, Quetzalcoatl-Topiltzin, Cinacoatl and Tepehua

(perhaps a name of Tlaloc). A painting (reproduced on p. 155) by one Mateo, representing the idols, with explanatory text, figured in the trial. *Ibid.* IX, pp. 301–305 (4 figs.), E. Guillemin-Tarayre treats of the great temple as described by Prescott, the Codex Ramirez, Codex Ixtlixochitl, etc., and its likeness to the great temple of Tezcuco, both of which were dedicated to Huitzilopochtli and Tlaloc. The great temple of Mexico was captured by the Spaniards in 1520. Prescott is in error in making Cortez visit first this great temple. It was the older temple of Tlatelulco to which Montezuma first conducted him. The author is engaged upon the reconstruction of the great temple of Mexico, which subject will be dealt with in a later paper.

Aztec Chronology. — In An. Mus. Nac. (Mexico), III, 1912, pp. 455–484 (pl.; 12 figs.), A. CASTELLANOS, after citing views of Seler, Mena, etc., concludes that the first page of the Fejérváry Codex, Kingsborough 44, is only a nahui olin, or time-counter. This article forms a chapter in his book

Los Antiquos Nusahi.

Aztec Maize Season in the Codex Fejérváry-Mayer.—In Amer. Anthr. N. S. XIV, 1912, pp. 525-529 (pl.), S. Hagar treats of the Mexican maize season in the Codex Fejérváry-Mayer, showing that "the symbolism of the maize harvest depicted upon the upper half of the sheets mentioned (33 and 34) may harmonize with the actual maize season of the Mexican plateau and the symbols of each season correspond equally well with those of the zodiacal sign that governs it which is represented directly below."

Calendar of the Codex Borgia.—In An. Mus. Nac. (Mexico), III, 1912, Apénd. pp. clxiii-clxxiii, is a translation by J. Engewand, from the Italian of Sr. Marquez, of his observations on the calendar of the Codex Borgia. The calendar, the ancient Mexican day and year signs, etc., are discussed.

Cosmic Contrast Series in Manuscripts. — In Archiv f. Anthropologie, N. F. XI, 1912, pp. 293–319 (70 figs.), H. Beyer discusses the series of "cosmic contrasts or opposites in the Codex Borgia, and the Codex Fejérváry-Mayer. These contrasts are: Light and dark, Dark and light, Night and dawn, Dawn and night, Drought and wetness, Wetness and drought, Night and day, Day and night (the conquering one in each pair is here italicized). Details of the symbolism, interpretation, etc., are given,

Antiquities of Tlaxcalla. — In Am. Mus. Nac. (Mexico), III, 1912, pp. 485–496 (10 pls.), R. Mena treats of "the land of the four lords of Tlaxcalla," — Tepeticpac, Tizatlan, Ocotelolco, and Quiahuistlan. Fragments of pottery found are figured and described. Of interest is the church of Tepeticpac, locally believed to occupy the site of the teocalli of Huitzilopochtli. The "basptismal font of the four lords," still preserved in Tlaxcalla, is thought to be the first font made by the natives at the orders of the Span-

iards. Some Spanish inscriptions are also recorded.

Mixtecan and Mazatecan Remains. — In Rec. Past, XI, 1912, pp. 266–269, L. N. Forsyth, under the heading 'Notes on the Mixteca,' treats briefly of the stone walls, on the banks of the Hiquila and Petlanco rivers, irrigation canals, house-sites (some of quite recent date), on the way from Tecomavaco to Coixtlahuaca, ruins, etc., and about Coixtlahuaca (its mounds, palace-ruins, deposits of clay dishes, idols, figurines, etc.). At Coixtlahuaca, are "several old maps; one with numerous painted hiero-

glyphs, and another showing the villages of the ancient district of Coixtlahuaca." The high-heeled sandals of this region are rather ancient. The author thinks the Indians may have known the use of iron and glass, — but this is most improbable, although an occasional employment of meteoric iron (a meteor containing much iron was seen on the Rio Salado) is not impossible. The notched steps in the hillsides and the notched post by which the granaries are entered may have been the ancestors of the steps of Mitla.

Ruins of Petroglyphs at Tuxtepec, Oaxaca. — In Bol. Mus. Nac. (Mexico), I, 1912, pp. 229–235 (2 pls.), P. Henning treats briefly of ruins and petroglyphs at Pueblo Viejo, Tuxtepec, Oaxaca. One rather small pyramid only was found, — no stone idols, mural painting, etc. Many human bones were discovered. Among the figures of the petroglyphs are the swastika-cross, conventional clouds, water-undulation, light-shaft, etc.

Ruins of Cempoalla and the Temple of Tajin, Vera Cruz. — In An. Mus. Nac. (Mexico), III, 1912, Apénd. pp. xev-clxi (57 pls.), is an account, based by J. Galindo y Villa on the material of F. del Paso y Troncoso in the Catálogo of the Mexican exhibit at the Madrid Exposition of 1892, which included a wooden model of the great temple of the Totonaco city of Cempoalla. The old chronicler's accounts of Cempoalla, plans and descriptions of the ruins are given, and the illustrations also include views and models of buildings, idols, figures in relief, funeral urns, and restorations. The temples, "house of Montezuma," pyramid of Papantla (Templo del Tajín), and the ruins of Colorado, Atlixcos, Boveditas, Paxlila, Brazo Seco, Cotaxtla, Vieju, La Mancha, etc., are described.

Talamanca Art and the Art of Chiriqui.—In Amer. Anthr. N. S. XIV, 1912, 314-319 (12 figs.), G. G. MACCURDY publishes some notes on the ancient art of Central America. A stone amulet (frog) of the Talamanca Indians of Costa Rica now in the Museum of the Academy of Natural Sciences (Philadelphia) is compared with figures from Chiriqui of the frog carved in resin, cast in metal, etc. The use of the alligator symbol and motif as head ornament, common to the Talamanca frog and certain Chiriqui specimens, is also discussed, and the resemblance of repoussé ornamentation of clay plaques (e.g. Venezuela) to those of gold (e.g. Chiriqui). As the writer notes, the art of these regions furnishes evidence of the replacement of one material by another, e.g. clay and gold, stone, resin, and gold, a most interesting aspect of primitive art.

Ruins of Nakcun. — In Journal de la Société des Américanistes de Paris, N. S. VIII, 1911, pp. 5-22 (3 pls.; 2 figs.; map), Count Maurice de Périgny describes his visit in 1909 (see A.J.A. XV, p. 126) to the ruins of Nakcun, discovered by him in 1906, and situated in Guatemala not far from the village of Benque Viejo (British Honduras). The plan shows a royal temple with stele, a small temple, a priests' house, a temple of hieroglyphs, a castillo, a camp, a chief building, and buildings of less importance. Noteworthy is "the effort at symmetry, —the rectilinear character of the distribution and ornamentation of the buildings." According to the writer what remains of the city forms an absolutely homogeneous plan. Some of the edifices have cornices ornamented with deeply carved signs. In a number of the rooms absolutely intact beams of canaste wood were found. The "temple of hieroglyphs" is so named from the stele at

its foot, containing hieroglyphs, with traces of red paint. Some other stelae, without inscriptions, may have been sacrificial altars. On the walls of the castillo, among other drawings is one of a leopard with his feet on a serpent. The ornamentation of some of the fragments of pottery discovered at Nakcun suggests comparison with Nicoya, etc. In Arch. Miss. N. S. 4, 1911, pp. 1-15 (11 pls.; 5 figs.), the same writer publishes another account of his discoveries.

SOUTH AMERICA

Ameghino's "Precursors of Man." — In L'Anthropologie, XXIII, 1912, Suppl. pp. 74-77, R. Verneau discusses the precursors of man, according to Ameghino, reaching the conclusion that the Argentinian palaeontologist's whole scheme of the genealogy of man is purely imaginary and hypothetic. Ameghino's Prothomo, Diprothomo, and Tetraprothomo are merely "men, like the men of to-day."

Ancient Culture of Eastern Bolivia. - In Journal de la Société des Américanistes de Paris, N. S. IX, 1912, pp. 307-316 (9 figs.), E. NORDEN-SKIÖLD gives some of the results of the Heinmarck expedition of 1908-1909 in the Mójos country of Eastern Bolivia. The last outlier in this direction of Andine culture is the sculptured mountain of Samaipata, not far from Santa Cruz de la Sierra. Here are to be found T-formed bronze axes, topos, llamas of gold, fragments of pots with handles, stone rings, hematite sling-stones, etc. But beyond this Inca-Andine civilization did not go. The mounds of the Mójos country yield well-painted funeral-urns, tripod vessels, and clay mullers of characteristic form. Further south funeralurns of a ruder, non-painted type and probably due to Chaco culture are met with, - the tripod pots found there indicate Mójos influence. The tripod pots seem to show "the influence of northern South America and Central America." The pottery and other ceramic remains are probably of Arawakan origin, to which source the writer attributes the ancient culture here discussed. The modern Arawaks of the Mójos country are all civilized and have retained but little of their Indian culture. At Santa Cruz de la Sierra, Andine, Arawakan and Guaranian cultures probably met. The Tupian or Guaranian stock is represented in Eastern Bolivia by the Chiriguanos and the Gúarayós. The Chanés of Northern Argentina are Guaranized Arawaks, the Tapietes probably Guaranized Matacans. The Chiriguano whistle is an object of some interest. The Chaco is "the pipe country of South America." It is also a region furnishing numerous resemblances to North America.

Arms and Utensils of Baticola Indians.—In Journal de la Société des Américanistes de Paris, N. S. VIII, 1911, pp. 55-60 (pl.), E. R. WAGNER describes hunting and fishing as practised by the Baticola Indians on the Rio Ignassu in Southern Brazil, their implements, arms, etc. They have arrows for use in war, others for killing big game, still others for birds, etc. A leather wristlet is employed to protect the arm from the bow-string. Arrow-heads, etc., are carried in a bag or boco of caraguata fibre. A special arrow is used for killing fish,—a detachable harpoon for large fish. The bolas is commonly used to take birds; also bow and arrow,—the children amuse themselves shooting at swallows on the wing. To get wild honey from the tree these Indians use a long tube of bamboo, by means of which

they suck it out of the hole. Simple traps are in use for the larger wild animals.

Bush-Negro Music. — In Journal de la Société des Américanistes de Paris, N. S. IX, 1912, pp. 27–39, L. C. VAN PANHUYS treats of song and music in Dutch Guiana, including the music and musical instruments of the Bush Negroes and Creoles.

The Ancient Quipu.—In Amer. Anthr. N. S. XIV, 1912, pp. 325-332 (4 pls.; fig.), L. L. Locke treats of the ancient quipu, a Peruvian knot record. From examination of specimens and drawings, descriptions, etc., of ancient and modern Peruvian quipu (particularly the collection in the American Museum of Natural History, New York), he concludes that the quipu was not used for counting or calculating, but for record-keeping,—the mode of knot-tying was not adapted to counting, and the Quichua language contained a complete and adequate system of numeration. Although a rough color-scheme may have been in use for some purposes, it does not appear that colors in all cases had special significance. They may have been according to the fancy or convenience of the maker. Of a certain quipu from Huando the author thinks that "it is possibly a record for six periods or years of four kinds of objects." The quipu were thus used for numerical records and not for narrative purposes.

BIBLIOGRAPHY

OF

ARCHAEOLOGICAL BOOKS

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*** Books, pamphlets, and other matter for the Bibliography should be addressed to Professor William N. Bates, 220, St. Mark's Square, Philadelphia, Pa.

GENERAL AND MISCELLANEOUS

J. Abercromby, A Study of the Bronze Age Pottery of Great Britain and Ireland and its associated Gravegoods. Oxford, 1912, Clarendon Press. 2 vols. 163 pp.; 61 pls.; 10 figs.; 128 pp.; 49 pls.; 2 figs. 4to. £3 3s. net. — H. Alcalde Del Rio, H. Breuil, et L. Siera, Les cavernes de la région Cantabrique (Espagne). Monaco, 1912, Chêne. viii, 261 pp.; 100 pls. — Animatus, Die Enthronung der antiken Kunst. Ein Schnitt in den kunsthistorischen Zopf. Berlin, 1911, Oesterheld & Co. 97 pp. 8vo. M. 2. — M. Louise Arnold, History of Art Outlines. I: Ancient Art. Hartford, 1912, Burr Index Co. \$2.

T. Baudon, Le préhistorique sur la falaise du Thelle (Oise). Recherche de l'homme tertiare. Industrie prépleistocène (1ºº partie). Paris, 1912, Société préhistorique française. 64 pp.; 31 pls.; 51 figs. 8vo.—— P. V. C. Baur, Centaurs in Ancient Art. The Archaic Period. Berlin, 1912, K. Curtius. viii, 140 pp.; 15 pls.; 38 figs. 4to. M. 40.—— F. Behn, Die Musik bei den Kulturvölkern des Altertums. Vortrag mit Demonstrationen an Modellen antiker Musikinstrumente a. d. röm.germ. Centralmuseum und mit Aufführungen altgriech. Musikwerke

durch Mitglieder der Mainzer Liedertafel. Mainz, 1912, V. v. Zabern. 15 pp.; pl. 8vo. M. 0.60. — J. D. Benderly, Ce que racontent monnaies et médailles. Les origines de la monnaie; son histoire et sa fabrication. Paris, 1911, Colin. 159 pp. 8vo. 1 fr. 50. — Florence Mary Bennett, Religious Cults Associated with the Amazons. New York, 1912, Columbia University Press. Lemcke & Buechner, agents. 79 pp. 8vo. [Dissertation.] — F. Benoit, L'architecture. (L'antiquité.) Paris, 1912, Laurens. 10 fr. — A. Blanchet et A. Dieudonné, Manuel de numismatique française. T. I: Monnaies frappées en Gaule depuis les origines jusqu'à Hugues Capet. vii, 431 pp.; 3 pls.; 248 figs. 8vo. 15 fr. — C. Blinkenberg, The Thunder-weapon in Religion and Folklore. Cambridge, 1911, University Press. xii, 122 pp.; 36 figs.; map. 8vo. 5s. — A. Börckel, Geschichte von Mainz als Festung und Garnison von der Römerzeit bis zur Gegenwart. Mainz, 1912, Diemer. xv, 330 pp.; 115 figs. 8vo. — H. Brising, Antik konst i Nationalmuseum. Urval och beskrifning. Stockholm, 1911, Förf. viii, 140 pp.; 60 pls. Folio. 72 fr. -H. Bulle, Der schöne Mensch

im Altertum. Eine Geschichte des Körperideals bei Ägyptern, Orientalen und Griechen. 2. Aufl. Munich, 1912, G. Hirth. xxxiv, 740 cols.; 320 pls.; 210 figs. M. 30. — Bulletin de la Société française des fouilles archéologiques. III. Paris, 1912, Leroux. 136 pp. 8vo. 3 fr.

Catalogue des Sculpteurs, Tableaux, Tapis, etc., formant la Collection d'Objets d'Art du Musée van Stolk, Janstraat 50, Harlem. La Haye, 1912, M. Nijhoff. 134 pp.; 5 pls.; 302 figs. 12mo. 1 fl. — V. Cauchemé, Description des fouilles archéologiques exécutées dans la forêt de Compiègne. Pt. 4, comprenant les fouilles de Champlieu et des Tournelles. Compiègne, 1912, Imp. du Progrès de l'Oise. Pp. 123-144. 4to. — Collections de feu M. Jean P. Lambros d'Athènes et de M. Giov. Dattari du Caire. Antiquités égyptiennes, grecques et romaines. Vente à Paris, Hôtel Drouot. Paris, 1912. 67 pp; 61 pls. 4to. — J. Commaille, Guide aux ruines d'Angkor. Paris, 1912, Hachette. 245 pp.; 154 figs. 16mo. 8 fr. — Congrès préhistorique de France. Compte rendu de la 6e session (Tours, 1910). Paris, 1911, Société préhistorique de France. 1208 pp. 8vo.— A. Curtius, Italien Plaudereien über Land und Leute. Bd. 2: Allerlei aus Altertum und Gegenwart. Bonn, 1912, P. Hau-stein. iv, 278 pp. M. 2.80.

A. Delle Seta, Religione e arte figurata. Rome, 1911, Danesi. viii, 287 pp.; 210 figs. 8vo. 16 fr.—
W. Deonna, L'archéologie, sa valeur, ses méthodes. T. 1: Les méthodes archéologiques. Paris, 1912, H. Laurens. 479 pp.; 32 figs. 8vo. T. 2: Les lois de l'art. 143 figs. T.3: Les rhythmes artistiques. 88 figs.——M. Dieulafoy, La bataille d'Issus, analyse critique d'un travail manuscrit du commandant Bourgeois. Paris, 1912, Klincksieck. 36 pp. 4to. 2 fr.——F. von Duhn, Ein Rückblick auf die Gräberforschung. Akadem. Rede. Heidelberg, 1911, Univers.-Buchdruckerei. 58 pp. 4to.

H. d'Espouy, Monuments antiques (textes et commentaires par G. Seure), Fasc. 11 and 12. Paris, 1911, Massin. 4to.

L. R Farnell, Greece and Babylon.

A Comparative Sketch of Mesopotamian, Anatolian, and Hellenic Religions. Edinburgh, 1911, Clark xii, 311 pp. 8vo. — Fuhrer in der Altertumsabteilung des ungarischen Nationalmuseums zu Budapest (bearbeitet von A. Hekler, L. v. Márton, Ed. Mahler, G. Nagy, und G. Supka. Budapest, 1911, F. Kilian. 194 pp.; 79 figs. 8vo. 2 kr.

C. Germain de Montauzan, Les fouilles de Fourvière en 1911. (Annales de l'Université de Lyon, N. S. II, 25.) Lyons, 1912, Rey. 103 pp.; 2 pls.; 15 figs. 8vo. — Glyptothèque Ny-Carlsberg. Livr. 16/17. Munich, 1912, Bruckmann. — H. Grothe, Meine Vorderasienexpedition 1906 n. 1902. Bd. 2. Leidzig, 1912, Hiersemann. xiv, 318 pp.; 62 figs.; map. 8vo. — S. Gsell, Atlas archéologique de l'Algérie. Alger, 1911.

J. Hampel, Magyar Nemzeti Muzeum. Kalauz a régiségtárban. 15 böv. (Hungarian National Museum. Guide to the collections of antiquities. 15th ed.) Budapest, 1912, Kilián. — O. Herzog, Die stilistische Entwicklung der bildenden Künste. Eine Einführung in das Wesen der Kunst. Berlin, 1912, Hause. 120 pp.; 17 pls. 8vo. — M. Hoernes, Kulturder Urzeit. 1. Steinzeit. 147 pp.; 41 figs. 2. Bronzezeit. 128 pp.; 37 figs. 3. Eisenzeit. 120 pp.; 35 figs. Leipzig, 1912, Göschen. M. 0.80 each. — E. Holländer, Plastik und Medizin. Stuttgart, 1912, F. Enke. viii, 576 pp.; pl.; 433 figs. 4to. M. 28.

E. E. Ivanov, Chersones Tavričeskij. Istor.-archeol. očerk. Simferopol, 1912. vi, 375 pp. 8vo.

C. Jacobsen, Ny Carlsberg Glyptothek, Helbig Museet. Fortegnelse over gjenstandene. Copenhagen, 1911. xvi, 133 pp. 8vo. — W. Johnson, Byways in British Archaeology. Cambridge, 1912, University Press. 542 pp. 8vo. — D. Joseph, Geschichte der Baukunst vom Altertum bis zur Neuzeit. 2. verb. u. verm. Aufl. 3 vols. with 1752 figs. Leipzig, 1912, Baumgärtner. 8vo. — T. A. Joyce, South American Archaeology. An Introduction to the Archaeology of the South American Continent, with Special Reference to the Early History of Peru. London, 1912, Macmillan. 306 pp. 8vo.

Kataloge d. Röm.-germ. Central-Museums, Mainz. Nr. 1: K. Schumacher, Verzeichnis der Abgüsse und wichtigeren Photographien mit Germanen-Darstellungen. 3. verm. Wilckens. Mainz, 1912, Aufl. 134 pp.; 70 figs. 8vo. — Nr. 3: K. Schumacher, Verzeichnis der Abgüsse und wichtigeren Photographien mit Gallier-Darstellungen. Mainz, 1911, L. Wilckens. 72 pp.; pl.; 32 figs. 8vo. M. 1.20. Effendi Kerestedjian, Bedros Quelques matériaux pour un dictionnaire etymologique de la langue turque. London, 1912, Luzac & Co. 364, 42 pp. 8vo. £1.1. net. – W. Klinger, Das Ei in dem Volksaberglauben, in Serta Borysthenica. Kiev, 1911. - Das Tier im antiken und modernen Aberglauben. Kiev, 1911. — R. Knorr, Südgallische Terra sigillata Gefässe von Rottweil. Stuttgart, 1912, W. Kohlhammer. vi, 50 pp.; 30 pls. 8vo. M. 4. — J. Kromayer, Antike Schlachtfelder. Bd. 3: Italien und Afrika. Abt. 2: Afrika von G. Veith; pp. 498-935; 23 figs.; 11 maps; und den Reg. f. d. ganze Werk. Berlin, 1912, Weidmann. 8vo. — Kurtze Beschreibung der antiken Skulpturen im Alten Museum. Hrsg. v. d. Generalverwaltung der Kgl. Museen zu Berlin. Berlin, 1911, G. Reimer. 126 pp.; plan. M. 0.50.

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Planetengötter in Sinope.

EGYPTIAN ARCHAEOLOGY

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Ägypt. Kunst am Kunstleben der Völker, Festrede, Munich, 1912, K. B. Akad. d. Wiss. 104 pp. 4to.— Die Kunst der alten Ägypter. Eine Einführung in ihre Geschichte. 2. Ausg. Leipzig, 1911, Hinrichs. 53 pp.; 32 pls. 8vo. — A. M. Blackman, Dendûr. Cairo, 1911, Inst. Franç. d'Archéol. Orient. 114 pp.; 120 pls. 4to.—P.A.A.Boeser, Beschreibung der ägyptischen Sammlung des Niederländischen Reichsmuseums der Altertümer zu Leiden. Bd. 4: Die Denkmäler des neuen Reiches. Abt. 1: Gräber. Haag, 1911, M. Nijhoff. Text, 10 pp. Plates, 38 pls. 30 fl.—L.

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allo studio del teatro antico. Vol. I. Milan, 1911, Sandron. xii, 334 pp.

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 G. Perrot, La Grèce archaïque. La glyptique. La numismatique. La peinture. La céramique (Perrot et Chipiez, Histoire de l'art dans l'antiquité. T. 9). Paris, 1911, Ha-chette & Cie. 703 pp.; 22 pls.; 367 figs. 30 fr.

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Tiryns. Die Ergebnisse der Ausgrabungen des K. d. Archäol. Instituts in Athen. Bd. I, 1: Die Hera von Tiryns, von Aug. Frickenhaus. 2: Die Geometrische Nekropole, von W. Müller und F. Oelmann. Athens, 1912, Eleftheroudakis & Barth. vi, 168 pp.; 10 pls. M. 12.

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Fouilles de Delphes. T. 3: Epigraphie. Fasc. 2 par C. Colin. Paris, 1911, Fontemoing.

Inscriptiones Graecae. Consilio et auctoritate Academiae litterarum regiae Borussicae editae. Vol. II: Inscriptiones Deli. Fasc. 2: Inscriptiones Deli liberae. Tabulae archontum. Tabulae hieropoeorum annorum 314–250. Ed. Felix Dürrbach. Berlin, 1912, G. Reimer. vii, 149 pp.; 4 pls. M. 26.

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BY

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AND

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The Institute will be entertained by the Montreal Society, and sessions will be held in rooms of McGill University. The headquarters of the Institute will be the Windsor Hotel.

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A circular containing more detailed information and embodying any necessary corrections of this preliminary announcement will be issued early in December.

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GREEK INSCRIPTIONS FROM SARDES III 1

Honorific Inscriptions

(b) To Priestesses of Artemis

THE following texts resemble those dedicated to priestesses of Athena at Pergamum (Ins. v. Perg. Nos. 489-525) and similarly commemorate women who had filled the highest post in the city's chief sanctuary. Their main interest lies in the fact that each priestess of Artemis bears the non-Greek official title of kaueis. We first present all the texts, and then briefly discuss (1) this novel title; (2) the data bearing on the cult of the Sardian goddess. The slabs Nos. 4 and 5, evidently from the facing of a wall, and the shaft No. 6 were found in March, 1911, about 4 metres below the surface, near the bottom of a short flight of marble steps extending parallel to the northwest anta westward, within the north peristyle, and at points 10 to 12 metres east of the west front of the temple of Artemis. This position suggested the probability: (1) that the two slabs, with several similar uninscribed slabs found near them, belonged to the low wall, about ten metres long, which seems to have masked the steps on the north side of the temple; (2) that the shaft had stood in or near the north peristyle, and, in view of its great weight, probably not far from where it was unearthed. The re-used slab No. 7 was found in June, 1911, in a position like that of Nos. 4 and 5, and at the same level — but under much deeper soil — on the south side of the temple, 12 metres west of the east front. It may have belonged to the facing of the south wall, but the fact of its having served as a doorsill makes its original site conjectural. That site, no doubt, resembled those of slabs 4 and 5.

4. Rectangular slab of bluish marble, finished smoothly at

 $^{^{1}}$ No. I was published in A.J.A. XVI, 1912, pp. 11–82; No. II, ibid. XVII, 1913, pp. 29–52.

American Journal of Archaeology, Second Series. Journal of the Archaeological Institute of America, Vol. XVII (1913), No. 3.

top and to right, more roughly to left, and at bottom, where it is badly chipped. On right side fine bearing edge. Height, 0.56 m.; length, 0.80 m.; thickness, 0.29 m.; height of letters (col. 1), 0.011 to 0.024 m.; (col. 2), 0.023 to 0.033 m. Date, late first or early second century A.D. Inv. A. 14.



FIGURE 1. - GREEK INSCRIPTION FROM SARDES.

COLUMN 1

δ δήμος ἐτείμησεν Μελιτίνην Θεογένους, καυειν, ἱερατεύσασαν ἀξίως τῆς θεοῦ.

COLUMN 2

ή βο[υλή καὶ ὁ δήμος ἐτείμησεν
Φλ[αβίαν nomen: patris nomen
ειν[patris nomen
θυγ[ατέρα cognomen καυειν ἱερατε[ύσασαν ἀξίως τῆς θεοῦ.

- (1) "The People honored Melitine, Theogenes' daughter, the *kaueis*, for having served as priestess in a manner worthy of the goddess."
 - (2) Same formula. The priestess' praenomen "Flavia" is certain.

Col. 1, line 2. Μελιτίνη, sometimes contracted to Μελτίνη, is a name common in Lydia, and was that of a Lydian town (C.I.G. 3473; K.P. I and II, index; Sterrett, Pap. Am. Sch. II, p. 24; Mouseion, III, 1879–1880, pp. 127, 147, 168, 169). Θεογένης also occurs in Lydia (K.P. I, No. 71; II, No. 254).

Line 4. Cf. $\mathring{a}\xi l\omega s \tau \hat{\eta} s \theta \epsilon o \hat{v}$ with $\mathring{i}\epsilon \rho a\sigma a\mu \acute{e}\nu \eta \nu$ in Ins. v. Perg., No. 521.

Col. 2, line 2. The priestess' name, $\Phi \lambda [a\beta ia]$, and the script date this inscription not earlier than the end of the first century A.D.

Line 3. Her father's name was doubtless some name such as $\Pi a \nu \lambda] \epsilon i \nu [o \nu]$ or $K a \tau \nu \lambda \lambda] \epsilon i \nu [o \nu]$. $K \nu \rho] \epsilon i \nu [a]$ is an improbable restoration, since in a patronymic the tribe was usually omitted. The father's name may have been followed by his patronymic, or by some title, like that of $a \gamma \rho \rho a \nu \delta \mu o \nu$ in No. 7, col. 1.

Line 4. The priestess' cognomen, which had about six letters, was perhaps some common one, such as " $A\mu\mu\iota\sigma\nu$.

5. Marble slab similar to No. 4 in color and finish of surface. Height, 0.60 m.; length, 1.31 m.; thickness, 0.22 m. Height of letters (col. 1), 0.017 to 0.023 m.; (col. 2), 0.023 to 0.026 m. The text of col. 2, lines 4 and 5, perfect when excavated, is now somewhat injured by unavoidable flaking, due to the drying of the slab.

Date (col. 1), 127 A.D. Inv. A. 16.

COLUMN 1

ή βουλή κα[ὶ ὁ δημ]ος ἐτείμησεν
Κλ. Πῶλλαν Κυιν[τί]λλαν, καυειν, ἱερατεύσασαν τῆς θεοῦ κοσμίως,
καὶ παρασχομένην πάντα ἱεροπρετῶς καὶ πολυτελῶς, καὶ ἀναστραφεῖσαν πρός τε τὴν θεὸν εὐσεβῶς
καὶ πρὸς τὴν κατοικίαν φιλοτείμως, καὶ τὰς ὑπὸ τῆς πόλεως ἐπιτελουμένας κατὰ μῆνα δημοτελεῖς
θυσίας ἐπιτελέσασαν ἐκ τῶν ἰδίων
ἐκτενῶς, Στερτινίω Κουάρτω ἀν-

COLUMN 2

[ή βουλη]καὶ δ δημος ἐτείμησεν καὶ ἀνέ- θηκεν *Απφιον Δημητρίου θυγατέρα, καυειν, τὴν ἱέρει- 5 αν τῆς 'Αρτέμιδος.

- (1) "The Council and People honored Claudia Polla Quintilla, the *kaueis*, for having served with dignity as priestess of the goddess; for having provided all things needful with due devotion and munificence; for having displayed reverence to the goddess and public spirit towards the community; and for having zealously performed at her own cost the public sacrifices performed each month by the city; in the year when Stertinius Quartus was proconsul."
 - (2) "The Council and People honored and erected a statue of



FIGURE 2. — GREEK INSCRIPTION FROM SARDES.

Apphion, Demetrius' daughter, the kaueis, the priestess of Artemis."

Col. 1, line 2. This priestess, like the others, cannot be identified with any one already known. Her name $\Pi \hat{\omega} \lambda \lambda a$ is fairly common, in Lydia (K.P. I, No. 119; II, No. 247; Mouseion, V, 1885–1886, p. 73), as at Magnesia-ad-Maeandrum (Ins. von Magn., index). The name was sometimes spelled $\Pi \hat{\omega} \lambda a$ (Le Bas-Wadd. 1155), or $\Pi a \hat{v} \lambda a$ (Ath. Mitt. XXXV, 1910, p. 177), and at Pergamum, as here, we find $K \lambda a \hat{u} \lambda a$ (Ins. v. Perg. 511); cf. the French equivalents Pol and Paul.

Lines 4–5. παρασχομένην πάντα κτλ. Same phrase in No. 6. The priestesses were evidently expected to support, in part at least, the expenses of the cult, but the gift of the sacrifices mentioned in ll. 8–11 seems to have been an extra act of munificence on the part of this particular woman.

Lines 6–8. εὐσεβῶς . . . φιλοτείμως. This distinction between behavior in religious matters and that in secular was a favorite one; cf. C.I.G. 3459 (of a Sardian priestess of Artemis) εὐσεβῶς μὲν . . . μεγαλοπρεπῶς δὲ καὶ πλουσίως; B.C.H. XI, 1887, pp. 375, 384: ἱερατεύσαντες εὐσεβῶς μὲν πρὸς τοὺς θεοὺς . . . φιλοτείμως δὲ πρὸς τοὺς ἀνθρώπους; also B.C.H. XXVIII, 1904, pp. 22, 33, 42, 44, 49, 51, 238, 241, 247; Jb.f. cl. Phil. Suppl. XVIII, 1892, p. 224.

Lines 8–10. τὰs . . . κατὰ μῆνα δημοτελεῖς θυσίας. These sacrifices may have been connected with monthly market-days, like the κατὰ μῆνας συντελουμένας θυσίας of O.G.I. No. 262, l.10 (near Apameia). Cf. C.I.G. 3493, 9; B.C.H. XI, 1887, p. 460: θυσίας τῶ θεῶ δημοτελεῖς (Thyatira); and of priests, δημοτελεῖς iepeῖς; Paton-Hicks, Ins. of Cos, No. 34, l. 46; No. 383, l. 16. On difference between δημοτελής and δημοτικός see Hesych. s.v.; on δημοτελής cf. also Hoffmann, Dial. II, p. 94, l. 44; Ath. Mitt. XXIV, 1899, p. 218, No. 45, l. 12; Dem. Ag. Meidias 53; Her. VI, 57.

Line 11. Stertinius Quartus was proconsul of Asia in 126–127 A.D. (cf. B. C.H. XI, 1887, pp. 111, 119; where read Κουάρ-[τωι for Κουαρ[τίνω and Quartus for Quartinius; cf. Chapot, La prov. rom. proc. d'Asie, p. 317; Prosopogr. imp. Rom. III, p. 273). The duration of the priestess' term of service is not known. The choice being limited to women of wealth (see above, lines 4–5,

and $\pi\lambda o v \sigma l \omega_S$: C.I.G. 3459), these priestesses were sometimes no doubt chosen for more than one term, like the women stephane-phoroi at Aphrodisias, one of whom served 16 years (R. Et. Gr. XIX, 1906, pp. 223, 276). Lydian inscriptions are often dated by the year of the proconsul, whose name is, as here, in the dative (B.C.H. XI, 1887, pp. 98, 99; XIV, 1890, p. 622; K.P. I, p. 68; Am. J. Phil. XXXI, 1910, p. 403; Head, Hist. Num.² p. 554). This is simply one instance of the use, which became general under the Roman régime, of the Greek dative to render the Latin ablative, as in $Kv\rho\epsilon l v a$ for Quirina (tribu). Occasionally by mistake the Greek absolute form (genitive) is combined with the Latin (ablative, represented by dative); e.g. $a v \theta v \pi a v \sigma v \Sigma \iota \lambda \beta a v \omega$ (B.C.H. XI, 1887, pp. 445, 446; verified in 1912).

Col. 2, lines 2–3. $\dot{a}\nu\dot{e}\theta\eta\kappa\epsilon\nu$. This word implies that besides the usual $\tau\iota\mu\dot{\eta}$ conferred by decree — that is, probably, leave to engrave the record on the temple-wall, or to erect a stelle or statue — this priestess received the rarer distinction of a statue or bust erected at public expense (see note on No. 2, A.J.A. XVII, 1913, pp. 29 f.).

Line 3. "A $\pi\phi\iota o\nu$ (sometimes spelled "A $\phi\phi\iota o\nu$ or "A $\phi\iota o\nu$) is a name common in Lydia (K.P. I and II, indices; B. C.H. XI, 1887, p. 470; at Sardes, No. 6 below, and C.I.G. 3469). So also is $\Delta\eta\mu\dot{\eta}\tau\rho\iota os$ (K.P. I and II, index), though at Sardes this seems to be its first appearance.

Lines 4–5. $\tau \dot{\eta} \nu$ iépeiav . . . The article shows that at this temple, as at those of Ephesus (Ins. Br. Mus. III, 2, p. 85, and No. 481, l. 162) and Magnesia-ad-Maeandrum (Ins. v. Magnesia, No. 98 and index), there was a chief priestess distinctively called $\dot{\eta}$ iépeia $\tau \dot{\eta} s$ 'Ap τ é $\mu i \delta o s$, who was the same as "the kaueis." The addition of the Greek $\tau \dot{\eta} \nu$ iépeiav . . . suggests that the native term $\kappa a \nu \epsilon i s$ was no longer generally understood.

6. Pedestal-shaft of bluish-white marble. Height, 1.79 m.; width at top, 0.48 m., at bottom, 0.51 m.; thickness at top, 0.48 m., at bottom, 0.50 m. The pedestal — which closely resembles one from Pergamum of 102-114 A.D. (Ath. Mitt. XXXII, 1907, p. 332) — was composed of this shaft, of the moulded base (0.31 m. high) found near by, which exactly fits it, and of a capstone probably similar to the one now in use

(0.33 m. high). The present capstone, having a neck 2 cm. narrower and 2 cm. less thick than the top of the shaft, can

hardly have originally belonged to this shaft near which it was found. The total height of the pedestal was about 2.43 m. (Fig. 3). ornate letters, 0.02 to 0.026 m. in height, are admirably cut, and framed within a border formed by a line incised parallel to, and 0.02 m. within, the edges of the inscribed face. The text occupies only the upper fifth of this face. A similar incised border is on the right and left sides, but not on the back of the shaft; all four of its faces are smoothly finished. Date, late first or early second century A.D. Inv. A. 15.

ό δημος
ἐτείμησεν "Απφιον
Μενάνδρου Λεχίτα Σεκοῦνδαν, καυειν, ἱερα5 τεύσασαν καὶ παρασχομένην πάντα ἱεροπρεπῶς καὶ πολυτελῶς ἀξίως τῆς θεοῦ.

"The People honored Apphion Secunda, daughter of Menander Lechitas, the *kaueis*, for having served as priestess and provided all things



FIGURE 3. — INSCRIBED PED-ESTAL FROM SARDES.

needful with due devotion and munificence, in a manner worthy of the goddess."

It is remarkable that, in the case of this priestess, we have not only the usual record of the decree carved on a temple-slab (cf. next inscription, No. 7, col. 2), but also this duplicate record engraved on the memorial to her, authorized by that very decree.

Lines 2–4. Ἄπφιον Σεκοῦνδαν. Both names are found in Lydia. On Ἄπφιον see above; on Σεκοῦνδα, cf. K.P. I, No. 167; II, No. 154.

Line 3. Μενάνδρον Λεχίτα. We regard this as a double name; see five instances of such double names in Ins. v. Perg. 485 and Fränkel's note. But there is a possibility that $\Lambda \epsilon \chi i \tau a s$ was the priestess' grandfather. Μένανδρος is common in Lydia (Arr. Anab. III, 6, 8; VII, 23, 1; K.P. I and II, indices); but



FIGURE 4. - INSCRIPTION ON PEDESTAL,

this is the first appearance there of $\Lambda \epsilon \chi i \tau as$, which occurs in Phrygia (cf. Ramsay, C.B. I, p. 143, No. 31; gen. $\Lambda \epsilon \chi i \tau ov$). Probably cognate are the name $\Lambda a \chi i \tau as$ in Thrace (Cagnat, Ins. gr. ad res rom. pert. I, No. 1502, $\Lambda a \chi i \tau a$); the woman's name $\Lambda \epsilon \chi \omega$ (I. G. II, 989, l. 12; S.G.D.I. 4534 b; 4583; Wide, Lak. Culte, p. 201; Bechtel, Att. Frauennamen, p. 72; Sittig, De nom. theophoris, p. 68); the epithet of Zeus in Arcadia, $\Lambda \epsilon \chi \epsilon a \tau i \tau s$ (Paus. VIII, 26. 6); and the epithet of Artemis $\lambda o \chi i a$ at Pergamum and elsewhere (Ins. v. Perg. 311; Eur. I.T. 1097; Suppl. 958). The addition of the grandfather's name would have been not unusual, and is possible here because $\tau o \hat{v}$ is

sometimes omitted. Cf. ἐπὶ στεφανηφόρου ᾿Αττάλου ᾿Αδράστου τοῦ Νεικοτείμου, Le Bas. Wadd., No. 1639; cf. A.J.A. XVI, 1912, p. 40. For omission of τοῦ cf. references in Ath. Mitt. XXXVIII, 1913, p. 52.

7. Marble slab, similar to Nos. 4 and 5, but with surface worn by use. Height, 0.55 m.; of part inscribed, 0.12 m.; length, 1.08 m.; thickness of inscribed part, 0.15 m.; of lower part, cut away probably to make door-sill, 0.13 m. Rectangular hole, 0.015 m. deep, sunk at each end of inscribed surface; that to left, 0.03 m. square, that to right, 0.045 m. \times 0.03 m.; oblong hole for door-bolt in centre of lower part, and round holes, apparently for pivots of door, in both upper corners of lower part. Height of letters: col. 1, 0.012 m. to 0.019 m.; col. 2, 0.015 m. to 0.022 m. Space 0.03 m. wide in col. 2, 1. 1, between Σ and E of third word, due perhaps to clamp formerly overlapping edge of slab. Below col. 1 faint traces of fourth line of script. Date, the same as that of No. 6. Inv. A. 52.



FIGURE 5. - GREEK INSCRIPTION FROM SARDES.

COLUMN 1

δ δήμο]ς ἐ[τείμη]σεν Μελιτίνη]ν [Μνη?]σιφίλου Πολυκ? Οτ Φιλοκ?]τή⟨ν⟩του ἀγορανό-[μου, καυειν, ἱερατεύσασαν κτλ.]

COLUMN 2

ό δημος ἐτείμησεν ¾Απφιον Μενάνδρου Λεχίτα Σεκοῦνδαν, καυειν, ἱερατεύσασαν καὶ
[παρασχομένην πάντα κτλ.]

Col. 1, lines 1–2. The two first letters and the last being certain, $M\epsilon[\lambda\iota\tau\iota\nu\eta]\nu$ seems the most probable restoration. Some word like $T\iota\mu\alpha]\sigma\iota\phi\iota\lambda\upsilon\nu$ or $M\nu\eta]\sigma\iota\phi\iota\lambda\upsilon\nu$ is also likely, as filling the gap better than $[\Pi\alpha]\sigma\iota\phi\iota\lambda\upsilon\nu$. $O\nu\eta]\sigma\iota\phi\iota\lambda\upsilon\nu$, $X\alpha\rho]\sigma\iota\phi\iota\lambda\upsilon\nu$, $\Gamma\nu\omega]\sigma\iota\phi\iota\lambda\upsilon\nu$, $N\alpha\nu]\sigma\iota\phi\iota\lambda\upsilon\nu$ would also be possible. There is

space for four letters, though there may have been only three.

Col. 2 obviously had the precise text of No. 6.

KATEIN

This word though non-Greek was doubtless declined in the Greek way. On the analogy of names in - $\epsilon\iota s$ (e.g. "Attely, O.G.I. 541; 'Aptelêly, Petersen, Reisen, II, No. 1931) we may infer that it is the accusative of kavels meaning "priestess." Since women's names in - $\epsilon\iota s$ or - ιs have masculine forms in - ηs (cf. 'Aptelêls or - μ ls, masc. - μ ls; Eltuvls, masc. - χ ls; Xpuvls, masc. - σ ls, etc.), this noun kavels = priestess leads us to expect a masculine equivalent kav ηs = priest. And thus the new texts explain a word hitherto misunderstood in the first line of Hipponax, fr. 2, which earlier editions give as follows (cf. Welcker, Hipp. fragm. 1817, p. 28; Bergk, Poet. Lyr. Gr. 1853, p. 589):3

Κίκων δ' ὁ πανδάλητος ἄμμορος καύης.

καύης (see Bergk's notes) was the reading of the MS. used by Tzetzes, who cited the passage to show how priests, etc., used to go bearing laurel wrapped with fillets, or wearing wreaths of laurel ($\hat{\eta}\nu$ —sc. δάφνην—οἱ ἱερεῖς τοῦ ἡλίου ἤτοι μάντεις καὶ μάγοι . . . στεφανούμενοι ἐπορεύοντο, καθὼς δηλοῖ καὶ Ἱππῶναξ κτλ.). So the translation "Cicon⁴ the . . . priest" agrees per-

¹Wrongly accented there, as in many epigraphical texts. For correct accent on ' $A\rho\tau\epsilon\mu\hat{\alpha}$'s or $-\mu\hat{\epsilon}$'s cf. commentaries on Herondas, VI, 87, 94; Rh. Mus. XLVIII, 1893, pp. 253 f.

 $^{^2}$ Not two forms, but one with variant spellings, as in the name Xapelous for Xaplous, C.I.G. 4721, and elsewhere.

³ Fick, Bezz. Beitr. XIII, 1888, p. 197, reads, . . . ἡμορος καύης, a passage in which Sir W. M. Ramsay first pointed out to us the significance of καύης.

 $^{^4}$ Κίκων, here used as a proper name, means literally "the Ciconian," i.e. one of the Κίκονες, a people of Thrace. It was probably a nickname, either

feetly with the point which Tzetzes wished to illustrate. Owing, however, to the gloss λάρος (= gull), καύης has in later editions (e.g. Poet. Lyr. Gr. 1882, II, p. 461) been changed to $\kappa \alpha i \eta \xi$ (= $\kappa \dot{\eta} \xi$, the common term; cf. Boraston, J.H.S. XXXI, 1911, pp. 217, 241) which gives no point to the passage. Since the meaning of kaves at Sardes is now almost beyond doubt and Hipponax may well here, as in fr. 1 (Ερμη κυνάγχα, Μηονιστί Κανδαύλα) and elsewhere (cf. πάλμυς in Bergk, Poet. Lyr. Gr. 4 II, p. 460, fr. 1; p. 467, fr. 15; p. 472, frs. 30 A, B; ef. μαυλιστήριον, ibid. p. 498, fr. 126, and Hesychius s.v.), have used a term peculiar to Lydia, we may take kavns (= priest) as established in this fragment. While our inscriptions thus carry this word back to its Lydian source, the line from Hipponax, written about the middle of the sixth century B.C., warrants us in regarding kaveis as current in Lydia before the Persian conquest. Whence kaveis was derived is a question to which, with our present limited knowledge as to the early history of Asia Minor, no complete answer can yet be given. This term, which in 127 A.D. (cf. No. 5, above) had clung to the cult of Artemis for nearly seven centuries, may have originated long before the settlement at Sardes of Lydians or Maeonians and may have been as alien to them as it was to the Greeks. Much light on the problem is certain to be thrown by the study which Professor E. Littmann is now making of the fine inscriptions in Lydian script 1 found at Sardes in 1911-1912. While not here attempting a final solution, we subjoin the following data which students of derivation may find useful.

(1) The Sardian titles and that in Hipponax are possibly related to those of the κοίης or κόης,² priest of the Cabiri at popular or coined by Hipponax, for an Orphic priest, since Orpheus was himself a Ciconian; cf. Diod. V, 77: (of secret mysteries) ἐν Θράκη ἐν τοῖς Κίκοσιν, ὅθεν ὁ καταδείξας 'Ορφεὺς ἢν...; Strabo, VII, fr. 18: ἐνταῦθα τὸν 'Ορφέα διατρῖψαί φησι τὸν Κίκονα, ἄνδρα γόητα....

 1 Cf. Third Report A.J.A. XVI, 1912, pp. 477 f. The Lydian word kawes or kafes occurs in three of these texts, and kawek or kafes in a 15-line inscription, found in situ near the temple. In each case kawes and kawek (probably meaning "and the kawes") appear in close connection with a masculine proper name. Professor Littmann considers it probable that kawes = "priest."

² The Greek $\gamma \delta \eta s$ is better derived from this word than in the current fashion (according to which it originally meant "a howler"!); cf. the Strabo passage

Samothrace (Hesych.), of the κωτάρχης, their priest at Didyma near Miletus (C.I.G. 2880-2882, Wiegand, Siebenter Bericht, 1911, p. 66), of the Κάβαρνοι, priests of Demeter at Paros (Steph. Byz. s.v. Πάρος; I. G. XII, V, 1, No. 292, l. 3), and to the name of the $K\acute{\alpha}\beta\epsilon\iota\rho o\iota$, who, worshipped with the Great Mother at Pergamum (Preller-Robert, Gr. Myth. I, p. 859) and Smyrna (Dar.-Saglio, I, p. 760), and with Artemis at Miletus (Heller, Jb. f. Kl. Phil. Suppl. XVIII, 1892, p. 239), seem originally to have been regarded as priests or attendants of the Mother Goddess. For a possible connection with the name of Kolos, the Titan, see below Mr. Arkwright's interesting theory (p. 367, and n.). The relationship to kavns of names such as Kάβαρνος (F.H.G. III, p. 633), Καβειρώ at Lemnos (Strabo, 472), Κάφειρα at Rhodes (Diod. V, 55), and the $Ka\phi\eta\rho\epsilon\dot{\nu}_{S}$ promontory in Euboea (Dümmler, Kl. Schr. II, p. 136 n.) is probably the same as that borne to kavns by the $K\dot{\alpha}\beta\alpha\rho\nu\sigma\iota$ and $K\dot{\alpha}\beta\epsilon\iota\rho\sigma\iota$, but a degree more remote.

(2) $\kappa av\eta s$ - $\kappa aveis$ may share in the derivation from Hebr. kohen, suggested for $\kappa o i \eta s$ by H. Lewy ($Die\ Semit.\ Fremdwörter\ im\ Gr.$, p. 258), and for $\gamma o \eta s$ (which probably $=\kappa o \eta s$), by Lagarde ($Abh.\ G\"{o}tting.\ G.\ d.\ Wiss.\ XXXV$, 1889, 'Uebersicht,' etc., p. 112, note). The main difficulties appear to be (1) that the kappa of $\kappa av \eta s$, $\kappa o i \eta s$, etc., usually transliterates only the Hebrew $q\^{o}ph$ (as in $\kappa a\beta o s$, 4 Kings, vi, 25, and names like Hezekiah, Eliakim), whereas kohen begins with a kaph; (2) that the upsilon of $\kappa av \eta s$ —doubtless represented in $\kappa o i \eta s$, $\kappa o \eta s$ by a lost digamma — must have had a value (=f,v, or b) unlike that of $b\bar{e}$ in bohen. But with further knowledge these obstacles may disappear, and we now know too little to reject this connection on the mere ground that it is Semitic.

(VII, fr. 18), above cited. Other words, in which there is resemblance but, so far as can now be seen, no relationship, are Sanskrit kavi = priest (Bötticher, Arica, p. 45), Old Pers. $k\bar{a}vy\dot{a}$ -h (Arch. Rel. XI, 1908, p. 71), and Latin Cabenses sacerdotes (Pauly-Wissowa,) s.v. possibly connected with Monte Cavo.

¹ The connection of Cybele's cult with that of the Cabiri though doubted by Kern (Ath. Mitt. XVIII, 1893, p. 359), is now generally admitted; cf. Töpffer, Att. Geneal. 1889, pp. 220–221; Wobbermin, Religionsgesch. Studien, 1896, p. 17; summary of authorities by Graillot, R. Arch. 4^{me} Sér. III, 1904, p. 346, n. 5. Cf. also Paus. IX, 25, 5: ὁποῖά ἐστιν αὐτοῖς (sc. Καβείροις) καὶ τῷ Μητρὶ τὰ δρώμενα... and see Miss F. Bennett, Rel. Cults assoc. with Amazons, 1912, pp. 23 f.

- (3) For Kάβειροι with which καύης, etc., may be connected — another Semitic derivation has been proposed: from kabirim = μεγάλοι θεοί (Preller-Robert, Gr. Myth. pp. 847 f.; Roscher, Lex. s.v. Megaloi Theoi.; Acad. Lincei, Memorie, XII, 1908. fasc. VII, p. 670; Gruppe, Gr. Myth. I, p. 230; Lewy, op. cit., p. 212; Eisler, *Philologus*, LXVIII, 1909, pp. 176-178, even derives the name Cybele from this Semitic root meaning "great"). Such an etymology is rejected by Fick (Hattiden u. Danubier in Griechenland, 1909, p. 48), who points out its inconsistence with the fact that the Cabiri were from early times worshipped at Pergamum, not independently, but as mere attendants of the Great Mother (also at Smyrna: Dar.-Saglio I, p. 760; Strabo, 466, 472). And their possible connection with καυης-καυεις is now calculated to confirm the view that the Cabiri were originally nothing more than what the Cabarni always remained, namely priest-attendants (πρόπολοι) of the goddess Artemis-Cybele-Demeter-Hecate. In Jour. Am. Or. Soc. XXXIII, 1913, pp. 55 f., Professor Hopkins connects Greek Kabeiros and Kobeiros with Sanskrit Kabairas or Kubairas. For the relation of Cabiri to Cybele, cf. ibid. p. 69.
- (4) An Indo-European origin, from the root κα_F = burning, has been suggested by Boeckh (*C.I. G. II*, p. 1119), G. Hirschfeld (*Ins. Brit. Mus. IV*, 1, p. 88), and Prellwitz (*Bezz. Beitr. XVII*, 1891, p. 168), as well as by older scholars (C. Keil and Lobeck, cited by Boeckh), for κοίης, κωτάρχης, and by Lenormant (Dar.-Saglio I, p. 757) for Κάβειροι. Κανεις would thus mean, "she who offers burnt sacrifice," and would be analogous to καῦσις (Hdt. II, 40) and ὁλοκαντέω (J. Harrison, *Prolegomena*, p. 55) used of sacrifices, and probably also to the Delphic κήνα or κέανα²

¹ Strabo, 472: φασὶ τοὺς Κορύβαντας τοὺς αὐτοὺς τοῖς Καβείροις ὅντας... ਖ Εκάτης προπόλους νομίζουσι τοὺς Κονρῆτας τοὺς αὐτοὺς τοῖς Κορύβασιν ὅντας. So, also, Clem. Alex. Protr. 2: Καβείρους δὲ τοὺς Κορύβαντας καλοῦντες... Perhaps, as here suggested, these were but three variations of one primitive name, Κάβειρος having originally been identical with Κούρης (i.e. κορυρης) and with Κορύβας, modified for easier pronunciation from κοβυρας by transposition of consonants.

² This seems to mean an altar for burnt offerings or sacrifices. But the Spartan cases of κέαναν (cf., for example, Tod and Wace, Cat. of Sparta Museum, No. 219, p. 42) should be read κελῦαν; cf. B.S.A. XII, 1905–1906, pp. 355 f.

- (C.I. G. 1688; Herwerden, Lex. s.v.; Prellwitz, loc. eit.). As between an Indo-European and a Semitic origin for $\kappa a \nu e \nu s$, probability favors the former, and that from κa_F seems preferable to that from kohen because it raises no phonetic objections. But an Asia Minor origin, neither semitic nor Indo-European, is also possible.
- (5) The following derivation from the name of a primitive deity, Koas, Kavas, or Kovas 1—whose priests the κόης, κωτάρχης, etc., would originally have been is suggested by Mr. W. G. Arkwright. (a) This god was perhaps indigenous to Asia Minor, where a large proportion of place-names are formed from names of local gods or heroes.² So Κύαρδα (Caria), Κυανα, hellenized as Κυάνεαι (Lycia), Καυίνδανα (Cilicia), Κύαλος (Lydia) may have been formed in this way. The same element is common in-proper names: Cilician, Κουας, Κουαλις, Κοαιος (Kretschmer, p. 368), Κοις, Κουαριμος, Κυητος, Οβρανγουεις; Lycian, Κοατα (kuwata), Καwarttu, Kawale(s), Καναση; Carian, Κυατβης, Κευαρος, Κυαρεμος; Pamphylian, Κυαιος; Pisidian, Κοιας, Κυητος, Πιλλακοης, Κως (= Κοας), Ιαγοας, Ειλαγοας.
- (b) These names, while attesting the existence of a god Koas, do not prove him to have been purely indigenous. It is therefore better to regard him as a Ram-god, the Carian or pre-Carian equivalent of the Samothracian Hermes, who was the younger Cabirus.³ The Ram, symbolizing the Cabiric cult of the "Pelasgic" Hermes (Head, Hist. Num.⁴ p. 263) appears on coins of Samothrace, Lemnos, and Pheneus in Arcadia (cf. Hermes Criophorus, Paus. V, 27–28) and figured in the Phrygian mysteries which were similar to those of Samothrace (Ramsay, C.B. I, p. 139). That Koas was a theriomorphic god is sug-

¹ Maspero, Struggle of the Nations, p. 355, conjectures that there was a Hittite god Qaui. Cf. also Tzetzes, Lycophron, 831: Γαύας δὲ ὁ *Αδωνις παρὰ Κυπρίοις καλείται.

 $^{^2}$ E.g. Τυβερισόs (Lycia), from a hero, Τούβερις (Steph. Byz. s.v. "Υλαμοι); Κολοβρασσός (Cilicia), from Κυλάβρας (F.H.G. IV, p. 428); Κάρουρα (Phrygia), from the god Μὴν Κάρου; Κύδραρα (Phrygia), from Κόδρος.

 $^{^3}$ The young Cabirus, Casmilus, or Cadmilus, in Samothrace, as in Boeotia = Hermes. Καδμίλος ὁ Ἑρμῆς Βοιωτικῶς: Schol. Lycophr. 162.

 $^{^4}$ On worship of Hermes at Pheneus and the $\tau\epsilon\lambda\epsilon\tau\dot{\eta}$ of Demeter see Paus. VIII, 14 and 15.

gested by the Carian gloss $\kappa \hat{\omega}s$ ($\kappa o a s$) = $\pi \rho \delta \beta a \tau o v$, and the Greek $\kappa \hat{\omega} a s$, $\kappa \hat{\omega} s$, a (sheep-) skin.¹ This identification is supported by the appearance of the same "ram" element, with wholly different etymology, in the names of the elder Samothracian Cabiri, ' $A\xi \iota \delta \kappa \epsilon \rho \sigma o s$ (= "snake-ram"; from anghw, snake, and the root of $\kappa \epsilon \rho a s$, horn²), the nasal dropping out as in $\xi \chi \iota s$ (from root of $\xi \gamma \chi \epsilon \lambda \upsilon s$) and ' $A\xi \iota \epsilon \rho o s$ (= "snake sheep," from anghw and the root of $\epsilon \iota \rho o s$ or $\epsilon \epsilon \rho o s$ wool-).³

This presupposes the inclusion of the "Pelasgic" tongue of Samothrace in the "centum group" of Indo-European languages. We know that 'Αξιόκερσος (= Hades) and 'Αξιόκερσα (= Persephone) were identified with the Theban snake-deities Cadmus and Harmonia (Ephorus, fr. 12; Apollod. III, 5, 4; Scylax, 24, 25; Geog. Gr. Min. I, pp. 30, 31 with the notes); and the conception of a snake-ram is rendered intelligible by the well-attested existence of a snake-bull.

Thus Sabazius, the tauromorphic Dionysus, was snake⁴ as well as bull, the mystic identity being shown in the sacred formula $\tau a \hat{\nu} \rho o (\pi a \tau \dot{\eta} \rho) \delta \rho \dot{\alpha} \kappa o \nu \tau o \kappa \alpha \lambda \pi a \tau \dot{\eta} \rho \tau a \dot{\nu} \rho o \nu \delta \rho \dot{\alpha} \kappa o \nu v^5$ Again in the old Elean litany the cry $\ddot{\alpha} \xi \iota \epsilon \tau a \hat{\nu} \rho \epsilon$, being presumably foreign and imported with the cult from the north, may well mean "snake-bull" (originally $\dot{\alpha} \gamma \xi \iota o \sigma \tau a \nu \rho o s$ from same root a n g h w). We should then assume that 'A $\xi \iota \dot{\sigma} \kappa \epsilon \rho \sigma o s$, the Snake-Ram, was not clearly distinguished from his son, the younger Cabirus, who was himself identified with Casmilus or Cadmilus

¹ Cf. Sayce's list of Carian words in Trans. Soc. for Bibl. Arch. IX, 1893, p. 118. Possibly Koas is represented by Koîos the Titan, father of Leto (Hes. Theog. 406, Diod. V, 67, 2) and brother of Rhea and of Kριδs (Apollod. Bibl. I, 1, 3; Hes. Theog. 134–135; Diod. V, 66, 3). If so, Koîos and Kριδs would be doublets of the ram-god. The priest-king of this primitive god Koas may have given rise also to κοαλδδεῖs (acc. κοαλδδεῖν), the Lydian for βασιλεύs (Hesychius).

² Cf. this root in the name of Κάρνειος, god of the pre-Dorian Lacedaemonians, whose prophet was Κριός (Paus. III. 13, 3) and whose name is derived $\dot{\alpha}\pi\dot{\alpha}$ τ $\dot{\omega}\nu$ κάρνων ήγουν προβάτων (Hesych.). See Pauly-Wissowa, s.v. Apollon, col. 55, and cf. 'Aπ. Κερεάτας, ibid. col. 56.

⁸ Cf. also, aries, ἀρνός and possibly ἔριφος.

⁴ Ramsay, C.B. I, p. 94; Frazer, Adonis Attis Osiris², p. 76, n. 5.

 $^{^5}$ Cf. Ramsay, C.B. p. 140; Clem. Alex. Protr. II, 15, 16, especially the words $\dot{\omega}s$ $\dot{\alpha}\rho\alpha$ $\dot{\alpha}\pi\sigma\sigma\pi\dot{\alpha}\sigma\alpha$ s $\dot{\sigma}$ Zε $\dot{\nu}s$ $\tau \sigma\hat{\nu}$ κριο $\hat{\nu}$, etc., an important passage for the ram in the mysteries.

⁶ Plut. Quaest, Gr. 36. Cf. Pauly-Wissowa, s.v. 'Αξίερος.

(= son of Cadmus) the Boeotian Hermes, and with Saos or Sabazius, the horned Dionysus. So when Alexander claimed to have been begotten by Ammon with the ram's horns disguised as a serpent, he was assuming the character of Cadmilus or Sabazius. We find yet a third horned beast, the goat, as a symbol of this younger Cabirus at Syrus, Aenus, and perhaps also at Paros, where the goat was clearly connected with the cult of Demeter (cf. her $\kappa \dot{a}\beta a\rho\nuo\iota$ priests above). The connection above suggested between the Cabiri and a primitive ramgod would account for the sacrifice of a ram at the Cabiric mysteries in Thrace (Berl. phil. Wochenschrift, 1904, col. 1230), and probably at Pergamum (Ath. Mitt. XXIX, 1904, pp. 154 f.; R. Arch. 1905, p. 29, n. 3), as well as in the Roman cult of Cybele (for criobolia cf. Dessau, Insc. sel., Nos. 4135–4153).

The Sardian Cult of Artemis

While the details of this cult remain obscure, two points in the new texts throw light on its general character: (1) its chief dignitary was a priestess; (2) she bore a title, κανεις, dating from before the overthrow of the Lydian monarchy. That a woman should head the temple hierarchy was characteristic of the worship as Artemis³ of that mother-goddess whose

¹ Cf. Aristotle, F.H.G. IV, pp. 158, 372; Diod. V, 48; Ramsay, C.B. I, p. 293; on Sabazius, Diod. IV, 4; Plut. Is. and Osir. 35.

² On coins of Syrus, where the worship was certainly Cabiric, Hermes, goat and Cabiri. On those of Aenus the goat appears, as also on those of Paros (goat + ear of corn). Cf. Dionysus 'E $\rho i\phi \omega s$.

³ There were high-priestesses of Artemis at Ephesus and Magnesia a/M. (references above). The priest in Ins. v. Magnesia, No. 98, ll. 15, 33, is not of Artemis (as stated by Miss Harrison, Themis, p. 153) but of Zeus, on the anta of whose temple this text was carved. The cult of Artemis was also conducted by a priestess at Panamara (B.C.H. XXVIII, 1904, p. 41) and Lagina (B.C.H. XI, 1887, p. 147); at Aphrodisias (R. Ét. Gr. XIX, 1906, p. 117), at Thyatira (LeBas-Wadd. No. 5, B.C.H. XI, 1887, p. 478; X, 1886, p. 422: two girls represented by their father), at Miletus (A. Pythia, priestess known as ὑδροφόρος, C.I.G. Nos. 2885–2886), at Cyzicus (A. Munychia, Michel, Rec. Nos. 537–538; on character of goddess, cf. Hasluck, Cyzicus, pp. 217–233), at Halicarnassus (A. Pergaia, Ins. Br. Mus. No. 895 = Michel, op. cit. No. 453), at Castabala (A. Perasia, Strab. XII, 537), at an unknown shrine (O.G.I. No. 263), at Laodicea-ad-mare (C.I.G. 4470–71) and probably at Sidyma, where there were women, and later, maidens, as νεωκόροι (Benndorf, Reisen, I, No. 53, Db, ll. 1, 10). We do not know whether the priestesses at Sardes, like those at Ephesus (Ins.

cult was among the oldest and the most widespread in Asia Minor. Thus the first fact makes it probable that honors of the same sort were paid to Artemis at Sardes as at other great shrines, like those of Ephesus and Magnesia-ad-Maeandrum. The second fact implies that in organization, and hence probably in its other features, the Sardian cult changed but little, if at all, during the Persian, Seleucid, and Roman periods. Both facts tend to prove that it had not been modified by, still less merged in, that of the Persian Anaitis (Anahita). This agrees with the evidence of Pausanias, who describes as an eyewitness the strange Persian rites practised in his own country¹ at Hierocaesareia and Hypaepa (Paus. V, 27, 5-6). These places lay respectively 23 miles northwest and 16 miles southwest of Sardes, yet at that far greater city, situated just between them, Pausanias fails to mention any similar rites. His silence implies that the worship of the Persian goddess at Sardes 2 was inconspicuous, and cannot have been domiciled in the great Artemisium. The distance separating the Sardian from the imported Persian cult is further shown by the difference between their respective priesthoods and temples. At the two shrines of Anaitis mentioned by Pausanias, her priest (ἀνὴρ μάγος), his tiara, his chanting of hymns before a flaming altar are, like the goddess herself, distinctly Persian.³ The statement that her worship was con-

Br. Mus. III, 2, p. 84) were Vestals; but as a husband is mentioned in one only of our priestess inscriptions (an unpublished fragment), it seems probable that maidens only were eligible to the priesthood, and that, like the priestesses of Athena at Pergamum (Ins. v. Perg. II, p. 327), they were not allowed to marry till their terms of office had expired. Priests of Artemis may also have existed at Sardes as at several other places (e.g. Ephesus: Ins. Br. Mus. No. 481, l. 308, No. 565, l. 4; Bargylia, B.C.H. V, 1881, p. 192; Thyatira, B.C.H. X, 1886, p. 422; Ath. Mitt. XXIV, 1899, p. 224; Cnidus, Ins. Br. Mus. No. 787; Iasus, J.H.S. IX, 1888, p. 339; R. Ét. Gr. VI, 1893, pp. 156, 165; Mylasa; C.I.G. 2699); but if so, it is highly probable that, like the priests at Ephesus, they were not chief dignitaries of the cult, else we should not find our priestesses defraying, as they did, the temple expenses.

¹ Pausanias was a Lydian, cf. Frazer's Paus. III, p. 552.

 $^{^2}$ A small votive stele to Artemis-Anaitis was found in April, 1913, in the excavations at Sardes.

³ Cf. Persian cult of Anaitis, as described by Strabo, XV, 733, and remarks of Herodotus (I, 131–133) on Persian religion; and cf. de Harlez, *Avesta*, p. CLXIV; on pp. XIV f. he discusses the evidence of Herodotus. For a good

ducted by a man is confirmed by two inscriptions from Hypaepa: one of the first century A.D. (O.G.I. 470), mentioning Theophron, priest of Anaitis-Artemis, the other probably of the third century A.D. (Mouseion, I, 1873-1875, p. 114 = Kaibel, Epigr. Gr. 903a) giving to the priest his official title ἀρχίμαγος. Similarly at Philadelphia, another important centre of Anaitis worship (cf. K.P. I, pp. 25 f.), a priest was the chief dignitary (C.I.G. No. 3422). It should also be noted that the cult of Anaitis at Hierocaesareia and Hypaepa was conducted in a small house or chapel ($o'' \kappa \eta \mu \alpha$, Paus. V, 27, 6), the simplicity of which seems to have been a relic of the Persian dislike of temples (Hdt. I, 131). If we compare this with the cult of the Sardian Artemis, carried on in a magnificent temple, not by priests, but by priestesses whose title shows that their office dates from pre-Persian days, we must infer that, in Sardes at least, the Lydian and Persian goddesses had but little in common. Such a view need not preclude the admission that in Maeonia and other parts of Lydia the imported Anahita probably coalesced with the indigenous Artemis or "Mother." But at Hierocaesareia and Hypaepa, such coalescence, though possible, is by no means certain; for the double name Anaitis-Artemis, apparently indicative of syncretism (and formerly so held to be by us; A.J.A. XVI, 1912, p. 28), may have been adopted, without fusion of cults, as a mere means of translating for Hellenic ears² the unfamiliar Persian name. Had there been real fusion, we should expect to find its traces in the cult described by Pausanias, whereas this of Anaitis-Artemis seems to have been purely Persian and that of the Sardian Artemis purely Lydian.3

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Persian description of Anaitis, cf. Bertholet, *Religionsgesch. Lesebuch*, p. 340.

¹ Buresch's sweeping inference (*Aus Lydien*, pp. 66 f.) as to the fusion of Anaitis with Cybele-Artemis has been rejected by Gruppe, *Gr. Myth.* p. 1536, n. 2, and the similar conclusions of Radet (*Cybébé*, pp. 58 f.) by A. J. Reinach (*Rev. de l'Hist. des Rel.* LXI, 1910, p. 361).

² Cf, for a like translation, the phrase κανειν τὴν lέρειαν τῆς 'Αρτέμιδος, in No. 5. ³ Cumont suggests (R. Arch. V, 1905, p. 25) that the cult of the native goddess 'Avala, after whom was named a place on the coast facing Samos, may have promoted that of Anaitis, owing to the resemblance of the two names.

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ATTIC BUILDING ACCOUNTS

III. THE PROPYLAEA

OF all the buildings on the Acropolis, the Propylaea alone are exactly dated by literary accounts. "Philochorus (in his fourth book) and others record that the Athenians began to build them in the archorship of Euthymenes (437/6 B.C.), with Mnesicles as architect; and Heliodorus in his first book about the Acropolis at Athens says, among other things, the following: 'In five years they were entirely finished; two thousand and twelve talents were expended; and five were the gates they made, through which they entered the Acropolis."1 It was without difficulty, therefore, that a fragment of marble found near the east portico of the Propylaea in 1830, inscribed with $(\Pi \rho o) \Gamma Y LAIOEPAA \leq [ias]$ and $[ias] Ei] \odot YMENO \leq APXO [v$ τος] on one side and ['Eπὶ τêς τετ] APTE ≤ APXE ≤, with Metagenes as first secretary of the senate (cf. I.G. I, 301, of 434/3) and Crates of Lamptrae as secretary of the treasurers of Athena (cf. I.G. I, 141, 142) on the other side, was recognized by Rangabé as part of the building accounts of the Propylaea (Ant. hell. I, 1842, pp. 88-91, No. 89). This fragment (I.G. I, 314 b-315 b) is necessarily the starting point for any consideration of the building inscription.

The next advance was made by Kirchhoff, who united the Rangabé fragment to another (I. G. I, 314 a-315 a) which had been likewise published by Rangabé (l.c. pp. 233, 394, No. 128) but had not been identified (Jb. Phil. Päd. 1861, pp. 47 ff.). Subsequently Kirchhoff suggested other candidates for the stele of the Propylaea, such as I. G. I, 312-313, 315 a-c (suppl. p. 38), and 554 (cf. p. 222). Unfortunately these last were not generally accepted; Köhler had already proposed to assign

¹ Harpocration, s.v. Προπύλαια ταῦτα; Photius and Suidas, s.v. Προπύλαια ταῦτα; Plutarch, Pericles, 13.

I.G. I, 312–313 to that series which he later identified as belonging to the Parthenon (I.G. I, p. 161), and in this he was followed by Foucart (B.C.H. 1889, p. 176, n.) and Michaelis (A.E. 10). Michaelis tentatively admitted I.G. I, 315 a-c and 554 (A.E. 5), but Bannier (Ath. Mitt. 1902, p. 303, n., Rh. Mus. 1908, p. 429) and Cavaignac ($\acute{E}tudes$, p. lxxi) rejected I.G. I, 315 a-c, as well as 312–313, and admitted only I.G. I, 554 of Kirchhoff's three suggestions. The net results of Kirchhoff's work seemed to be, therefore, the addition of I.G. I, 314 a–315 a, and 554, to the Rangabé fragment.

Eduard Meyer (Forschungen, II, pp. 99, 101, n.) rather casually speaks of another fragment as belonging to the Propylaea, I. G. I, 316. This was confirmed by Bannier, who identified one more fragment, I. G. I, 331 d, suppl. p. 77, and found that, according to the lettering at least, it must have joined I. G. I, 316 accurately (Ath. Mitt. 1902, pp. 302–303); I. G. I, 316 itself is lost.

Cavaignac's list of fragments of the inscriptions of the Propylaea is the same as Bannier's, viz. *I.G.* I, 314 b-315 b, 314 a-315 a, 316, 331 d, and 554 (Études, p. lxxi).

This was the state of the inscription when I worked on it in 1909–10 in connection with the study of the Propylaea. At that time I enlarged the number of fragments from five, the total proposed by Kirchhoff, Bannier, or Cavaignac, to seventeen. Delays in the presentation of this material allowed me to supplement it by similar investigations of the inscriptions of the Parthenon (A.J.A. XVII, 1913, pp. 53–80) and of the Erechtheum (*ibid.* pp. 242–265), and also to benefit by the subsequent studies of Woodward (B.S.A. 1909–10, pp. 198–205) and Bannier (Berl. Phil. W. 1911, p. 853; 1913, pp. 317–319).

Woodward's studies, proceeding in two directions, led him to enlarge the number of known fragments from five to ten; he included the two rejected Kirchhoff fragments and three others hitherto unpublished. Measuring the two opisthographic fragments united by Kirchhoff (I.G. I, 314, 315) and the two opisthographic fragments proposed by Kirchhoff but rejected by subsequent authorities (I.G. I, 312–313, 315 a-c), he observed

¹ Cf. A.J.A. XVII, 1913, p. 55 and n. 1.

that they all taper in thickness to such an extent as to prove that they all belong to a single stele. Kirchhoff, indeed, had already suggested that to include these fragments the stele must have tapered from bottom to top (I.G. I, suppl. p. 38), and this solution overcomes the objection of Bannier and Cavaignac that they differ greatly in thickness. Woodward's conclusions as to the exact positions of the four opisthographic fragments, as indicated by their thicknesses, I am, however, unable to accept; and in the following discussion I have retained my own restoration of the stele, which was completed several months before he measured the fragments in question. On the other hand, Woodward identified with certainty one new fragment (O in the following list), which he correctly joined with two others which I had placed side by side in the Epigraphical Museum; since his transcript (B.S.A. 1909-10, p. 199) does not represent the three fragments separately, I give them here:

1 4 1 1 0 1	E	E
НҮГОРЛ	APŁ) O M /
KAILIO		O N
KATAM	1 P X E	D W
W ≤ ⊙	₹ B O	
AN T	Y E:E	₹
-	E	L L
		0
		- 0
		/
frg. M	frg. N	frg. O

Besides all these, I include five fragments already published but never yet assigned to the inscription of the Propylaea. Bannier (*Rh. Mus.* 1906, p. 223) had suggested that *I.G.* I, 116 i, suppl. p. 25, and Kirchhoff that *I.G.* I, 317 a, suppl. p. 38, and 555 l, suppl. p. 128, were parts of some building

accounts, but they were not more definitely identified. Foucart (B. C.H. 1889, p. 176, n.) and Michaelis (A.E. 10) assigned I.G. I, 331 to the accounts of the Parthenon. I.G. I, 555 k, suppl. p. 56, was supposed to be a part of the tribute lists.

Finally, I must mention four fragments which have not yet been published. The most important is numbered P in the following list; I found it in the fourth room of the Epigraphical Museum. Q, R, and S were scattered in the first room of the museum; my attention was called to Q by Woodward; attached to S I found a manuscript note to the effect that it joined the missing fragment I.G. I, 331. The four unpublished fragments are represented below:

7.1	₹ 1/\ 1
IEP A	EY≷BL
I≷TIC	/T01 € L
E IT/	, S S A
⊃ O N O ≷	
10LEO	frg. R
T A	
N	
-	
frg. P	1
	LIC
	LIC
Λ.1	LIC
€ O M A T	LIC
frg. Q	frg. S

For convenience I number the nineteen above-mentioned fragments as follows: A = I. G. I, 116i; B = 312–313; C = 314a–315a; D = 314b–315b; E = 315a–e; F = 316; G = 317a; H = 331; I = 331d; J = 554; K = 555k; L = 555l; M, N, O = B. S. A. 1909–10, p. 199, and as shown above; P, Q, R, S as shown above. Seventeen of the nineteen fragments are now in the Epigraphical Museum at Athens; two, I. G. I, G. I, G. I, G. I, G. I, G. In the sequence of the nineteen fragments are now in the Epigraphical Museum at Athens; two, G. In the sequence of G is the sequence of G is the sequence of G. In the sequence of G is the

There is one fundamental piece of external evidence which affects the arrangement, *i.e.* the testimony of Heliodorus and Plutarch that the building was erected in five years. This has always been accepted, and in view of what we shall learn from fragment E, I may here state that the information is exact. With the aid of this, and because the two fragments (C and D) from the top of the stele show on one side the prescript of the year 437/6 (EPE[v] \odot YMENO \leq APXO[$v\tau os$], the first year of the work, according to Philochorus), and on the other side the prescript of the fourth year ([$\epsilon \pi \lambda \tau \hat{\epsilon} s \tau \epsilon \tau$] APTE \leq APXE \leq), Kirchhoff correctly deduced the fact that the accounts of the first, second, and third years were inscribed on the obverse of the stele, and those of the fourth and fifth years on the reverse.

The first attempt to arrange other fragments of the stele was by Cavaignae ($\it Etudes$, pp. lxx-lxxi). He observed that $\it I.G.$ I, 554 (J) has writing characteristic of the obverse of the fragments $\it C+D$, and he assigned it to the third year, supposing that the fragment $\it I.G.$ I, 244, of the tribute lists of the Delian Confederacy, would exclude it from the second year (436/5). That this conclusion is erroneous, even if we can suppose that $\it I.G.$ I, 244 is rightly dated in the $\it Corpus$, will appear below. Again, he decided that the two fragments $\it F+I$ joined by Bannier have writing characteristic of the reverse of the stone, and that they must date therefore from the fifth year; both the writing and the preservation of the surface show clearly, however, that these fragments belong to the obverse.

Here, too, I may briefly describe Woodward's restoration. On the four large opisthographic pieces (B, C + D, and E) he distinguishes the obverse from the reverse correctly, but unfortunately supposed that the three fragments first published by him (M + N + O) had the shape of the letters and the finish of the surface characteristic of the reverse (l.c. pp. 201, 202), and accepted without question Cavaignac's similar error in the case of F + I. With J the actual date, the second year, is obtained accidentally, by placing it in the upper part of the obverse, while the blank space at the end of the stone shows that it belongs at the bottom. The two opisthographic pieces dated by Rangabé and Kirchhoff (C + D) remain correct in Woodward's restoration, but the two other opisthographic pieces are assigned to

the very dates at which they could not have been inscribed. Furthermore, he accepts the arrangement followed in the case of the Parthenon (cf. A.J.A. 1913, p. 54), a pair of columns side by side, only where I.G. I, 315 a-b (E) proves that there was more than one column; elsewhere he has a single column, subdividing into two columns at the bottom of the obverse, and returning into one column on the reverse. This unusual disposition is represented in tabular form, B.S.A. 1909–10, p. 205.

The four opisthographic fragments, B, C, D, and E, form the skeleton about which all the smaller pieces must be placed. As given in the Corpus, B is either 10 cm. (Pittakis) or 14 cm. thick (Köhler), C and D are 11 cm. thick (Pittakis), and E varies from 17 to 18 cm. (Köhler). According to my measurements, C and D, at the top of the stele, are 0.111 m. thick; at the bottom of the lowest line of letters on C the thickness has increased to 0.138 m., with a taper of 0.027 m. in 0.400 m. or of 0.0675 m. per metre. In fragment E, the thickness is 0.159 m. at the top of the topmost letters, and 0.186 m. at the bottom of the lowest letters, a taper of 0.025 m. in 0.370 m. or of 0.0675 m. per metre. In fragment B I find a variation between 0.136 m. and 0.155 m., a taper of 0.019 m. in 0.277 m. or of 0.0685 m. per metre. The uniformity of these four fragments is emphasized by the high rate of the taper, 68 mm. per metre.² To compare building inscriptions only, the decrees for the Temple of Athena Nike were inscribed on a slab which tapered, to be sure, but only 0.008 m. (from 0.093 m. to. 0.101 m.) in a distance of 0.295 m., a rate of 27 mm. per metre. On the other hand, the building inscription of the Parthenon was cut on a slab of uniform thickness, 0.198 m. throughout its

 $^{^1}$ I.G. I, 313 is assigned to year II instead of year I, as is obtained below; I.G. I, 312 is given to year IV instead of year V; I.G. I, 315 a-b is assigned to years II and III instead of I and III; and I.G. I, 315 c is assigned to year V instead of year IV.

 $^{^2}$ Woodward gives for C, 0.11 m. at the top and 0.13 m. at a point 0.35 m. lower; for E, 0.17 m. at the top and 0.185 m. at 0.30 m. lower; for B, 0.14 m. at the top and 0.155 m. at 0.30 m. lower; this is a taper of 50–57 mm. per metre. These inaccuracies of measurement gave him false positions for B and E.

 $^{^3}$ It has not the uniform thickness 0.09 m. given by Kabbadias, 'E ϕ .'A $\rho\chi$. 1897, p. 176.

height.¹ The opisthographic building inscriptions of the Erechtheum are cut on slabs of uniform thickness, 0.139 m. and 0.155 m. throughout.

In fragments C + D the face with the prescript of the first year (I.G. I, 314) is in most part well preserved, with the original polish of the surface. The reverse (I.G. I, 315) is on the contrary so badly weathered that it is extremely difficult to read, just as is the case with the Parthenon inscription (A.J.A. 1913, p. 57). The same characteristics distinguish the two faces of fragment B, of which I.G. I, 313 must therefore be the obverse, and I.G. I, 312 the reverse. Likewise it appears that in fragment E the face with I.G. I, 315 a-b must be the obverse, and I.G. I, 315 c the reverse.

As regards the relative positions of the fragments in the entire height of the stele, the taper gives us absolute evidence. C + D combined would contain portions of ll. 1-13 of the obverse and of ll. 1-18 of the reverse. The increase in thickness of the stele is practically 2 mm. for each line of inscription (on the obverse). We may calculate from this that fragment B includes ll. 16-28 of the obverse and ll. 19-32 of the reverse. And E contains parts of ll. 31-47 of the obverse and ll. 41-46 of the reverse.²

Laterally these four fragments may be located with as much certainty. The key is given by the obverse of fragments C + D. The first preserved letters of line 2 are AI, the ending of [' $E\pi\iota\sigma$ - $\tau\acute{a}\tau$]AI, and this has always, from the time of Kirchhoff, been restored as the first word of the inscription. That it was not the first word is shown by the entries below the prescript. In the combined fragments C + D we find below the prescript traces of six lines in smaller letters; on C, at the left, are sums of money, and on D, at the right, are words. That these two columns, one of money and the other of items, belong together is shown by the fact that where the heading $[A\nu a\lambda o]MATA$ occurs

¹ Strange to say, it is in this stele that Foucart and Michaelis attempted to insert our tapering fragment B.

² Woodward (*l.c.* p. 201) by means of his measurements of the taper calculates that fragment B was separated from C by a gap of at least 0.175 m., so that B would contain ll. 25–37 of the obverse, and E, of which the lowest line would be, according to Woodward, 1.435 m. below the top of the stele, would contain ll. 49–65 of the obverse. The gaps are really much smaller.

in the item column, we find the money column empty. Below this heading must therefore be expenses; and there in fact we read . . . MATON, which should be, on the analogy of the Parthenon accounts, [ονε] MATON. Above the heading ['Aναλο]-MATA are two items which must be receipts. These two items are supposed to represent all the revenues of Athena for that year, which were so great that when they had been diverted into the treasury of the Propylaea, it became unnecessary to appeal to the state for funds, as was done in other years.2 Let us see of what these revenues consisted. The first item is a sum of 132 drachmae received as A≤HIEPA≤MI≤ (an item which appears on both sides of fragment B as OIKIA≤HIEPA...); the second is a sum of 6 drachmae 1½ obols received as KON TIME (which appears on fragment B as pinako. 11...). The total receipts for the first year would thus have been 138 drachmae 1½ obols,3 out of which 27,200 drachmae,4 and much more now lost, were expended! These two very small sums cannot be from the regular sources of large supplies, such as the state treasury, the board of treasurers of Athena or of the Delian Confederacy, or other boards. Moreover, it must be noticed that $\tau \iota \mu \acute{\epsilon}$, indicating the money derived from the sale of objects, appears only among the last items of each year in the Parthenon accounts; house rental also, when it is mentioned elsewhere in the Propylaea accounts and in those of the Eleusinian epistatae (I.G. I, 288 a, suppl. p. 145), appears among the last items. It seems extremely probable therefore that these two

¹ This combination of two columns, money on the left and items on the right, is found also in the Parthenon inscription (cf. A.J.A. 1913, p. 59).

² Cavaignac, Études, p. 101.

 $^{^4}$ Kirchhoff and Cavaignac read the total sum remaining as even greater, 72,200 dr.

small sums are the last items in a series of receipts, most of which have been previously mentioned. Such a previous mention could occur only if there were another double column of the inscription to be read before C + D, which would therefore be at the top of a second double column.

That there were two such double columns is certain. Actual traces of both appear on the obverse of fragment E (I, G, I, G). If we were to attempt to restore only one column, the top of G, as located by the taper, would collide with the bottom of G; we must therefore place G at the left or right of G, but not below it; this again results in two columns. That the same arrangement must be extended to the whole stele will become apparent from a comparison of the lengths of the lines of the inscription.

Fragment I, shown to be of the obverse by its well preserved surface, very unlike that on the reverse faces of the four opisthographic fragments, and by the larger size and spacing of the letters, belongs to the right edge of the stele (the edge is preserved) and so to the second double column. As combined with F, the obvious restoration of line 7 (Bannier, Ath. Mitt. 1902, p. 303) has 26 letters, spaced 0.0133 m., so that the 25 spacings (0.332 m.) with the two half letters at the ends (0.010 m.) and a blank surplus of 0.026 m. at the right, give 0.368 m. as the distance of the beginning of the item column from the right edge of the stele.² On the obverse of C+D, the left edge of the money column, as obtained above, is 0.225 m. from the left edge of the item column. The entire width of the second double column was then 0.225 + 0.368 = 0.593 m. If there were two such double columns, the width of the stele would have been approximately 1.19 m. More than two double columns would give a very impracticable width for a thin free-standing slab.

We now place the obverse of C + D at the top of the stele,

¹ Disregarding these facts, Cavaignac and Woodward assign it to the reverse.

 $^{^2}$ A similar result for the width of the item column may be obtained on the reverse of C + D, where we restore in lines 9-10 (an item repeated word for word in the Parthenon account, Col. V, ll. 17-20, of the same year) 30 letters, spaced 0.0126 m., so that the 29 spacings (0.365 m.) with the two half letters at the ends (0.010 m.) would give the width of the item column as about 0.375 m.

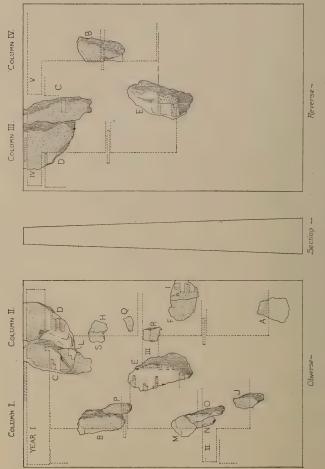


FIGURE 1. — THE BUILDING ACCOUNTS OF THE PROPYLAEA.1

¹ This drawing and those on pp. 54, 245, 249, and 257, are reproduced at the same scale, $4 \, \mathrm{cm} = 1 \, \mathrm{m}$. or as actual size. Two fragments of the obverse, 6 and R, not yet accurately located, are omitted in the drawing. above the second double column, the beginning of the money column 0.594 m. from the right edge of the stone. As a result, the axes of the first preserved letters in ll. 4 and 5, in both cases I, are 0.038 m. to the right of the left edge of the money column. The axes of O and M, the last preserved letters in Il. 3 and 4, are 0.395 m. farther to the right, and therefore 0.594 - (0.038 + 0.395) = 0.161 m. from the right edge of the stone. In this space we could restore at most, in 11. 2 and 3, six more letters with the average spacing of 24 mm. But it is noticeable that when we add four more letters in line 3, we arrive at the end of the word APXO[vtos]; and simultaneously ll. 2 and 6 arrive at the ends of words, EPAA≤[ías] in line 2 being spread to occupy nine spaces instead of eight, and AMPITPO[$\pi \hat{\epsilon} \theta \epsilon \nu$] in line 6 being squeezed into eleven and a half spaces so as to finish evenly at the right. Here then we may terminate the prescript, leaving the remaining 0.058 m. in blank.1

On the obverse of C + D, the prescript of the year 437/6 has 11. 2-5 perfectly stoichedon, an arrangement which is varied in ll. 6-7 of fragment C, though it is regained on fragment D with the purpose of ending line 6 evenly with those above. This variation was caused by the insertion or omission of one letter in line 6. There, the name $E\Gamma$. XA... occupies $9\frac{1}{2}$ letter spaces, so that it contained either 9 or 10 letters; and judging by the manner in which the letters diverge more and more from the axes of those above, it is evident that the purpose was to insert an extra letter; the name was therefore 'Επιγάρινος or 'Επιγαρίδες. Line 7 follows the arrangement of line 6, except that the last two letters, having plenty of room, are spaced farther apart. $E\pi\iota\chi a\rho\iota$. $A\mu\phi\iota\tau\rho\sigma\pi\hat{\epsilon}\theta\epsilon\nu$ is the fifth and last epistates; next must follow the regular formula,2 which closed the prescript and announced that receipts were to be entered next; τούτοις λέμματα το ένιαυτο τούτο τάδε, and the last four letters of this are preserved in line 7. Between the beginning of $E\Gamma$. XA... and the beginning of $TA\Delta E$, which

 $^{^1}$ Four letter spaces at 24 mm. occupy 0.096 m., and the last half letter 0.007 m., total, 0.103 m.; and 0.161 - 0.103 = 0.058 m.

 $^{^2}$ In this restoration I follow Kirchhoff ; cf. the Parthenon accounts, $A.J.A.\,1913,$ p. 59.

comes exactly below it, we must expect 50 letters, 22 for the name and deme of the fifth epistates, and 28 for the closing formula (omitting the $\tau \acute{a}\delta \epsilon$). But since these include one extra letter, the ordinary stoichedon arrangement must have had 49 letters. In these the average spacing is 24 mm., so that with 48 spacings (1.152 m.), and adding the two half letters at the ends (0.013 m.), we obtain the total width of the prescript as about 1.165 m. To this must be added the surplus of 0.058 m. at the right edge of the stele, giving a minimum of 1.223 m. for the total width of the stone; we may assume, therefore, that the width was about 1.23 m.

We may be certain that the first annual prescript extended over the two double columns, as on the stele with the report of the Erechtheum Commission in 409/8 (I.G. I, 322); such an arrangement accounts for the appearance of the first annual prescript on fragments C + D of the second double column. Another important result is the discovery of the number of letters that must be restored at the left of those preserved in the prescript on C + D. In II.4 and 5, in which the first preserved letters are both I, we read 22 letters to the right edge; the total number of letters in a regular line being 49, we must restore 27 at the left of the I. In line 2, where the first preserved letter A is two spaces to the right of the I in II. 4 and 5, we must restore therefore 29 letters at the left, instead of the 7 given by the restoration [$\ell\pi\iota\sigma\tau\acute{a}\tau$] AI. These new considerations lead to the following restoration:

 $\left[\Theta\epsilon o\iota:\ A\theta\epsilon va\iota a:\ Tv\chi\epsilon\right]$

- L. 1.—No trace of a letter is now visible; the invocation is supplied on the analogy of that which heads the reverse of the stele; the latter could hardly have occurred without the former (cf. Cavaignac, Études, p. lxx).
- L. 2. Before the word $\lceil \epsilon \pi \iota \sigma \tau \acute{\alpha} \tau \rceil A \mid$, hitherto always restored as the first word of the inscription, were 22 letter spaces. The only possible specification of time, $E\pi i \tau \hat{\epsilon}_s \pi \rho \acute{o}\tau \epsilon_s \mathring{a}\rho \chi \hat{\epsilon}_s$, falls short by 5 letters. The gap must be filled by words which shall have a relation to the whole, equivalent to that of ἐπιστάται. Now the epistatae and their secretary are all provided for in the following lines; but on the analogy of the very similar prescript to the report of the Erechtheum Commission (I.G. I, 322) the architect's name also should appear. And his name may have a very prominent place, as in the Erechtheum accounts of 408/7 (Ath. Mitt. 1901, 224). It so happens that 22 letter spaces will be filled exactly by the words 'Αρχιτέκτον Μνεσικλές καί. Mnesicles is mentioned by only two ancient authors, Philochorus (in Harpocration s.v. Προπύλαια ταῦτα) and Plutarch (Pericles, 13). Philochorus mentions him in the same breath with the fact that the Propylaea were begun in the archonship of Euthymenes, as if he had derived the entire sentence from the prescript of this inscription. The passage in Plutarch is supposed to have been derived from Ephorus, who may have copied the statement from this official record (cf. Fowler, Harvard Studies, 1901, p. 215).
- L. 2.— The building is here called the $\Pi\rho\sigma\pi\dot{\nu}\lambda\alpha\iota\sigma\nu$, perhaps in reference to the fact that only the central hall was then under consideration. Three years later, when the wings too must have been well under way, we find it named, in the plural, $\tau\dot{\alpha}$ $\Pi\rho\sigma\tau\dot{\nu}\lambda\alpha\iota\alpha$ (Col. III, 1.45). And so it is in later inscriptions, beginning with I.G. I, 32 B¹, whether we assign this to the year 435/4 (Kirchhoff, Abh. Berl. Akad. 1864, p. 8 f.; 1876, p. 21 f.) or to 419/8 (Cavaignac, Rev. Phil. 1900, p. 135; $\not\!Etudes$, pp. xxii, 138), and in literature, beginning with Thucydides (II, 13).
- L. 3. The name of the secretary of the epistatae here occurred before the mention of the archon, as Kirchhoff recognized, and so must have been introduced by the word $ho\hat{s}$, referring back to the board consisting of the architect and the epistatae; elsewhere the introductory word is $h\hat{\epsilon}\iota$, referring to $d\rho\chi\hat{\epsilon}s$. There are 30 letter spaces before the archonship is given; subtracting the necessary $ho\hat{s}s$ and $d\gamma\rho\mu\mu\dot{a}\tau\epsilon\nu\epsilon$, 15 letter spaces remain to be divided between the secretary's name and his demotic. Both were therefore comparatively short. The demotic ends with ... ϵ] $Y \leq$, and might have 6 (four examples in the list of Attic demes), 7 (five examples), or, more probably, 8 letters (twenty-one examples, in the pre-Euclidean spelling). The name would have had 9, 8, or 7 letters, according to the length given the demotic; in any case, the sixth letter of the name seems to have been A (Col. I, 1. 59). I therefore restore [....as.... ϵ] $Y \leq$.
- L. 4. [' $A\theta\epsilon\nu\alpha'$ ioισιν], restored in agreement with the prescript for the last five years of the Parthenon (in the thirteenth and fifteenth years

 $^{^1}$ As restored by Wilhelm, $Sitzungsb.\ Wien.\ Akad.\ 1901,\ p.\ 13$; cf. Cavaignac, $\textit{Etudes},\ p.\ xxi$ and pl. I.

of which, however, it was shortened to $A\theta\epsilon\nu\alpha i\omega$ because of lack of space).

L. 4. — [$\kappa \alpha \hat{\iota} \epsilon \pi \hat{\iota} \tau \hat{\epsilon} s \beta \delta \lambda \hat{\epsilon} s \hat{\iota} \hat{\epsilon} s$], Kirchhoff; the $\kappa \alpha \hat{\iota}$ seems unnecessary, and does not seem to have occurred in the Parthenon accounts, nor is there space for it in the present line if we accept [$\hat{\iota} A \theta \epsilon \nu \alpha \hat{\iota} \delta \iota \sigma \nu$] and $[\Pi \epsilon] I \odot [\hat{\iota}] \Lambda \Delta E[s]$, both of which seem necessary.

L. 4. — The name of the first secretary for 437/6 reads.. $\mathbb{I}\odot$. $\Lambda\Delta E$, restored by Kirchhoff as $H\epsilon\rhooia\delta\epsilon$ s, accepted with reservations by Ferguson (The Athenian Secretaries, p. 14); Michaelis read. $i\theta$. $\lambda\delta\epsilon[\varsigma]$ (A.E. 5), and Bannier..... $\delta\epsilon[\varsigma]$ (Rh. Mus. 1908, p. 430). The same name is preserved on fragment O of the Parthenon account for this year (Cavaignac, Études, p. lxii), again with the beginning of the name broken away. The restoration of l. 4 [' $\Lambda\theta\epsilon\nu aioio\nu \epsilon n$ ' $\tau\epsilon\varsigma$ $\beta\delta\lambda\epsilon$ $\delta\epsilon$ $\delta\epsilon$...] leaves only two letters for the beginning of the name, which must therefore be $[\Pi\epsilon] \mathbb{I}\odot[\epsilon] \Lambda\Delta E[\varsigma]$. This has been confirmed by Woodward's discovery of the small fragment of the Parthenon inscription (B.S.A. 1909–10, p. 188; cf. A.J.A. 1913, pp. 58, 72).

Ll. 5-6. — [ἐπιστάται] should probably be repeated here, to fit the usual formula and to reduce the space for the first name to less than 24 letters. There were five epistatae, as is shown by the amount of space allotted to their names; there were five epistatae likewise in 434/3, but only four in 436/5 and 435/4. A similar irregularity appears in the first ten years of the Parthenon accounts, where there were probably five epistatae in the first year, six or seven in the third, three in the fifth and eighth, and four in the ninth year.¹

The receipts for each year are classified and follow each other almost in a fixed order. They may be divided into five departments: (1) the surplus from the epistatae of the previous year; (2) grants from various boards, the treasurers of Athena, the Hellenotamiae (both from the tribute of the Delian Confederacy and from the army chest), and the treasurers of Hephaestus; (3) money received from the sale of useless material, tiles, wood, pinakes, hides of animals, and coloring matter; (4) regular income from house rental; and (5) contributions from private individuals.

Fragment B, which cannot be placed in the second item column of the obverse without colliding with the bottom of C+D, apart from the fact that the receipts which it contains cannot continue the expenses begun on C+D, must be located

¹ Five seems to have been the usual number, as in the early account, I.G. I, 293–296. But only three appear in the account for the statues of Athena and Hephaestus (I.G. I, 318) and in the report on the Erechtheum (I.G. I, 322).

in the first item column of the obverse, ll. 16–28. The small unpublished fragment P makes an actual contact joint with the obverse of B, so that no doubt of its attribution is possible; it contains portions of ll. 23–31 of Col. I, and shows that the heading 'Αναλόματα for the first year was in l. 29. Among the items in the missing ll. 8–15 we may restore the usual formulae for receipts from the treasurers of Athena and from the Hellenotamiae. The remaining items are as follows:

```
[\chi \sigma]YLO[\nu]
      ξ ΥΜΜΓικ το
     ΕΡΑΜ ( [τ οα π ο
     NKAO A Ti pe O
                         ε
   0
     NTON
              E [- - -
20
        ΔΟΚ / [- --
      ξ Υ ΓΟ Ν [π ρα θ ε ν τοντιμε]
   X
     ΙΝΑΚΟ[ν] ΤΙ [μ ε]
       ΚΙΑ ₹ ΙΙΕ ΡΑ [s μισθοσι s]
     A P A P L [€] I ≷ T I C [----
25
      K Υ T O N [π] E P I T / [εματοντιμε]
      A PA\leq \lceil \dot{a} \ v \rceil \supset 0 NO\leq \lceil ----- \rceil
  [ε] O EN [ι] ΙΟ LE Ο[ντος---
```

Ll. 16-17. — $[\chi\sigma]\gamma \downarrow O(\nu)$ and $X \leq YMM(i\kappa\tau\sigma\nu)$ both suggested by Kirchhoff; the formula for the receipt from the Hellenotamiae, $X \leq YMM[\alpha\chi\iota\kappa\hat{o}\ \phi\delta\rho\sigma]$, cannot be restored here because the traces in line 16 will not fit.

Ll. 18-21. — Evidently these go together to form a single item, in connection with the sale of material from the old Propylon and adjacent buildings, now demolished to make way for the new structure. With Il. 18-19, compare the sales of old roof tiles from demolished buildings in Delos (*I.G.* XI, 144, A 21; *I.G.* XI, 287, A 22-23; *B.C.H.* 1905, p. 489, a 7).

L. 22.—A sale of old wooden beams from demolished buildings; similarly the woodwork of a propylon at Delos was sold before making repairs (I.G. XI, 161, A 38; cf. B.C.H. 1882, p. 20, l. 157).

L. 23.—The sale of *pinakes* was continued into the next year (Column II, line 9). Could they have been revetment slabs from the old Propylon, or the marble metopes of the Hekatompedon?

L. 24. — This item will be discussed in connection with Col. II, line 8; the word $\mu \acute{\alpha} \theta o \sigma \iota s$ is correctly restored by Bannier (*Rh. Mus.* 1906, p. 221, n. 5; cf. also *I.G.* I, 283, 15–19; 288 a, suppl. p. 145; *I.G.* II, 814, a,

A 26/30, and b, 24/25), but is rejected by Cavaignac (Etudes, p. xxx, n. 2) and Woodward (B.S.A. 1909/10, p. 202).

L. 25.—A private contribution; Pleistias was probably the same as the ambassador to Perdiccas of Macedonia in 426 B.C. (I.G. I, 40) and the secretary of the senate of 435/4 (I.G. I, 37, 273).

L. 26. — An entry of unusual character; it is the year immediately after the Panathenaic festival of 438, and this is almost certainly a reference to the $\delta\epsilon\rho\mu\alpha\tau\iota\kappa\acute{o}\nu$ (cf. Hesychius, s.v. $\sigma\kappa\acute{v}\tau$ os τ aν $\delta\acute{\epsilon}\rho\mu\alpha$), the money accruing from the sale of the hides of the cattle slain in that festival (Harpocration, s.v. $\Delta\epsilon\rho\mu\alpha\tau\iota\kappa\acute{o}\nu$); the rather rare word $\pi\epsilon\rho\iota\tau\mu\acute{\epsilon}\mu\alpha\tau$ a is usually found in connection with $\delta\acute{\epsilon}\rho\mu\alpha\tau$ a (cf. Hesychius, s.v. Κόλλεα; Moeris, s.v. Πεττύκια), so that the association with $\sigma\kappa\nu\tau\acute{o}\nu$ is perfect.²

Ll. 27-28. — Contributions from two private individuals, Sauron, who contributed also to the Parthenon in 439/8 (A.J.A. 1913, p. 69), and Timoleon.

The expenses of the first year, as has been mentioned, begin in line 29. The large fragment E, which has on the obverse the straggling ends of the lines of an item column at the left and the beginning of a money column at the right, must be placed midway between the two columns, and in 11. 31-47; the items at the left must, therefore, belong to the expenses of the first year. The three fragments, M + N + O, joined together by Woodward, obviously contain expenses, the conclusion of an account, and the prescript of a new year. The preservation of the surface is totally unlike the granulated and badly weathered reverses of B, C, D, and E. Woodward unfortunately thought that they resembled the reverse of E (B.S.A. 1909-1910, p. 201); placing them on the reverse, he could assign them only to the end of the fourth year and the beginning of the fifth.3 On the obverse we must choose between the first and second years or the second and third. As we shall find, the beginning of an annual prescript, evidently the third, appears on E, in the second column 11. 35-39; the fragments M + N +

¹ On the δερματικόν, cf. I.G. II, 163 and 741.

 $^{^2}$ It is used also in connection with thin silver plates in the Parthenon inventories (I.G. II, 695, 8–9; 698, II, 29–30; J.H.S. 1909, pp. 182, 184, ll. 12–13).

³ Woodward believes that this dating is confirmed by restoring, in the annual prescript on I+J, as first secretary of the senate, $K_{\rho\nu\nu}$ ($\delta\epsilon$) $T_{\epsilon\nu}$ θ θ θ , who held that office in 433/2; this would approximately fit a *stoichedon* arrangement. But not only is the number of letters in these lines completely unknown, so that such a restoration cannot be checked; in no case in these inscriptions is the demotic of the first secretary given.

O cannot be fitted to this with any sort of stoichedon arrangement. On the other hand, it is possible to make a perfectly stoichedon arrangement if we consider that the prescript belongs to the second year. What is more important at present is that the phrase hoδοποιοῖς καὶ λίθος ἀνατιθεσι ἐπὶ τὰ κύκλα, which appeared so frequently in the accounts of the Parthenon (Col. III, 61–62; Col. IV, 22–23, 58–59; Col. V, 32–34), and was indeed suggested by Woodward in the case of E (l.c. p. 205), proves that E and M+N+O all belong together. When thus fitted together, it appears that the accounts of 437/6 closed in line 51, the expenses having occupied 23 lines.

```
[A ν α λ ο μ α] Τ Α

30 [ο ν ε μ α τ ο] Ν

[- - - - - -] - [- - - - - -] | ≤ | Ε | Α ≤

35 [λ ι θ ο τ ο μ οις Π εντελε] ⊙ Ε Ν

] Ε Ν

δ] ) ≤

ι] ≤ | Ε | Α ≤

40
```

```
45 Η Υ Γ Ο ι [γ ο ις - - -
Η Υ Γ Ο Ρ Λ [ο ις Γ εντελεθεν h ο δ ο] Γ Ο Ι Ο [ις]
Κ Α Ι L Ι ⊙ [ο ς αν α τιθεσιεπιτα] ⟨ Υ Κ L Α
Κ Α Τ Α Μ Ε [ν ιον]
Μ Ι ≤ ⊙ Ο Μ Α [τον]

50 Α Ν Ε / □ Ο Ν [--- - -
□ Α Ρ Ε [δ] Ο Μ [εντ οις νεοις επιστα τε σι]
```

L. 45. — $[hv] \sqcap O[\rho \gamma o \hat{i}s]$, Woodward; another possibility is $\exists Y \sqcap O \vdash [o \lambda \iota \nu]$, as in the Parthenon inscription (Col. II, line 105), and perhaps also in the Propylaea accounts, Col. II, next to last line.

L. 47. — KAILIO [οτόμοις], Woodward.

L1.48-49. KATAME[$\nu \iota a$]|M| $\leq OM[a\tau a]$, Woodward, in the nomina-

tive; he questions the case of $\kappa\alpha\tau\alpha\mu\epsilon\nu\iota\sigma\nu$ (B.S.A. 1909–10, p. 199, n. 2) where it appears in the Parthenon inscriptions, but it should obviously be in the genitive case (cf. A.J.A. 1913, p. 75, and Berl. Phil. W. 1913, p. 317²).

L. 50. — ANE[λ o σ a]M[$\epsilon \nu$], suggested by Bannier (*Berl. Phil. W.* 1913, p. 318).

L. 51.—Only the first word is restored by Woodward; Bannier now reads the line as I have given it, on the analogy of *I.G.* I, 289–296 (*Berl. Phil. W.* 1913, p. 318).

I have observed that the annual prescript on fragments N+O can be restored to fit the requirements of the second year; slight traces of the beginning of the receipts appear on the same stones.

L. 54. — Woodward restores Κριτιάδες Τειθράσιος (B.S.A. 1909-10, p. 203), to fit his supposed date of the fragment, and an assumed number of 43 letters to the line; but the number of letters in these lines is unknown, and the demotic of the secretary should not be given.

Another fragment, J, also from the obverse, as is shown by its preservation and lettering (Cavaignac here agrees), comes from the bottom of a column, as is shown by the fact that $4\frac{1}{2}$ cm. of blank space still remain below the last line.³ Because this fragment shows that the column ended in the course of a year's receipts, Column II, which must have ended the account of the third year (since the fourth year began afresh

¹ The use of $\kappa \alpha \tau \alpha \mu \epsilon \nu lois$, in the dative case, in one portion of the Parthenon account, is not a stone-cutter's mistake, but mine; that we should read $\kappa \alpha \tau \alpha \mu \epsilon \nu lov$ here also, I shall show in a later number of this *Journal*.

² Bannier is here mistaken in supposing that Woodward intends to read the two lines as one entry; the divisional mark is given, B.S.A. 1909-1910, p. 199.

⁸ This fact was not observed by Woodward, who places it almost at the top of the stele, above B. He thus accidentally arrives at the correct date, the second year. Cavaignac assigned it to the third year, for reasons given below.

at the top of the reverse, Column III), is out of the question. We must place it at the bottom of Column I, where its receipts will continue those on fragment O. The receipts, from the treasurers of Athena and from the Hellenotamiae, are those which generally follow directly after the entry of the surplus (as in the Parthenon account, Col. I, 76–81; Col. III, 47–48; Col. V, 16–20; and elsewhere in the Propylaea, Col. III, ll. 9–13); but in some cases other receipts are entered first (as in the Parthenon, Col. I, 109–114; and elsewhere in the Propylaea, Col. II). Rather than make J follow O directly, we may interpose some such entry as παρὰ hελλενοταμιον ἀπὸ στρατιας (cf. Col. II; Col. III, 16). J should be placed in ll. 61–65 of Column I, or perhaps a little lower. In any case, it was continued directly by the receipts in ll. 8–9 of Column II.

Sums of money are preserved at the left of the last two items: II, 8 IAAAFF

9 **THC**

L. 59. — [----]\[s], in which the five spaces at the beginning are given by the $\pi a \rho \hat{a}$ of the line above, is the name of the secretary for the epistatae of the first year, as was explained in the comment on line 3.

Ll. 61-65.— These lines are repeated according to Kirchhoff's restoration, I.G. I, p. 222, except that $ho\hat{s}$ is moved to the beginning of line 62, in line 63 I read h, and in line 64 I = χ .

L. 64. — The only demotics beginning with Al being Αἰγιλιεύς, Αἰθαλιδες, and Αἰχσονεύς (all of nine letters), the additional trace / makes the resto-

ration $Ai\chi\sigma ov\epsilon \acute{v}$ s certain. Cavaignac (Études, pp. lxx-lxxi) attributes J to the third year because, he says, the demotic of the secretary of Hellenotamiae (beginning with Al) is not the same as that for the second year, 436/5, as given by I.G. I, 244. This is not a valid reason, however, because the demotic of the secretary of that year, $\Phi LE[\tau a\iota\rho os\Theta \epsilon o\delta]EKTO[s]$ as restored by Dittenberger (Syll.¹ No. 17), or $\Phi LE[\mu ovi\delta \epsilon SEi\rho]EKTO[s]$ (Kirchhoff, Abh. Berl. Akad. 1870, p. 108) is lost; Cavaignac must have attempted to restore EKTO as a demotic. On the contrary, the trace on J fits the nine spaces for the demotic in line 4 of I.G. I, 244, so that if the latter is correctly dated in the Corpus, we should read the name of the secretary in ll. 63–64 of the Propylaea inscription as $\Phi\iota\lambda\acute{\epsilon}\tau a\iota\rho os$ or $\Phi\iota\lambda\epsilon\mu ovi\delta\epsilon$ s $Ai\chi\sigma ov\epsilon\acute{\nu}$ s (cf. A.J.A. 1913, pp. 68, 69 n. 2, 79).

Col. II, line 8.— $[\chi o\rho]$ A \leq HIEPA \leq MI \leq [θ 65], Cavaignac ($\dot{E}tudes$, p. lxx); to this Woodward rightly objects (B.S.A. 1909–10, p. 202, n. 1–2). For $\mu \dot{\alpha} \sigma \theta \sigma \sigma \iota s$, compare Col. I, line 24. I deferred until this moment the consideration of the size of the annual rental. This is probably the rental of one of the houses from which Athena derived part of her income, the amount being transferred in this case by her treasurers to the account of the epistatae. The Delian treasury received only 297 drachmae for the yearly rental of several houses (I.G. II, 814 a, A 30; b, 25), so that a larger sum than the 132 drachmae, obtained by completing the H of which one hasta is visible in line 8 of our inscription, would be surprising for a single house, besides extending beyond the left edge of the money column. The rate was probably about 8 per cent; the valuation of the house was probably about 1650 dr., which, if not in connection with a large estate, would imply a house of the better class. This rental of 132 dr. probably appeared in each annual account of the Propylaea.

L. 9. — Cavaignac supposed that the space was not great enough for the four missing letters of $[\pi \iota \nu \acute{a}]$ KON unless the I was "en surcharge."

The expenses of the second year begin in line 10 of Column II; and on fragment E, just above the five letters which form the beginnings of the five lines of the third annual prescript, we observe in line 33 the traces of L(M) of the surplus. The fracture of L(M) I, 555, 1) fits the bottom of the obverse of

¹ Compare the lists of οlκίαι lepal and of οlκήματα belonging to the Delian Apollo (I.G. II, 814, 817).

² Kirchhoff and all later commentators prefer to make it larger.

³ A workshop, dwelling house, and another building in the Peiraeus, representing a total value of 700 dr., were rented for 54 dr. yearly, or $7\frac{5}{7}$ per cent (*I.G.* III, 1058; Fränkel, *Hermes*, 1883, pp. 314–318); a house in Melite worth 3000 dr., together with a house in Eleusis worth 500 dr., brought in as rental 300 dr. or $8\frac{4}{7}$ per cent (Isaeus, $\Pi \epsilon \rho l \ \tau \sigma \hat{v} \ ^{2} \Lambda \gamma \nu lov \ \kappa \lambda \dot{\eta} \rho ov$, 42).

⁴ Compare the prices, for instance, in the inscription of Tenos: Dareste, Haussoullier, and Reinach, *Inscr. juridiques*, I, pp. 64-87.

C, and completes the sums of money in ll. 11-13. Fragment S likewise belongs to the obverse, according to the preservation of the surface; with it must be considered the missing H, which joined it accurately. The items are clearly expenses; the spacing of the lines is slightly too great for the similar items of stonework on E, Column I; we must therefore place them in Column II, among the expenses of the second or third year. A more definite attribution seems to be impossible; at present I include them in the second year's account. The tiny fragment O seems, according to its surfaces, to belong to the obverse of the stele. The items which it contains, μισθομάτον, did not occur at the beginning of the expenses of the first, second, or fifth year, but did occur at the end of the expenses of the first and third years; probably the end is the natural place for it.2 With the end of the first year's account occupied by M + N + O, and that of the third year apparently by A, we should place O near the end of the account of the second year.

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¹ At the beginning of the expenses of the second year, Col. II, line 11, could be read $[\mu\iota\sigma\theta o\mu\alpha]^{-}[o\nu]$ only by an impossible crowding of the letters; Cavaignac seems to be mistaken in saying that the second M of $\mu\iota\sigma\theta o\mu\dot{\alpha}\tau o\nu$ is still distinct.

² The Parthenon accounts, however, give this item twice at the beginning and twice at the end.

L. 12. — $[\mu \sigma \theta \sigma] M[\alpha] = [\sigma \nu]$, Cavaignac (l.c. p. lxx).

L. 13. — The first figure is probably

rather than

n, as it is usually read.

L. 33. — The amount is repeated in line 40, from which this is restored.

The accounts of the third year begin in line 35 of Column II; here are letters which can only be the beginnings of the five lines of the prescript. Restoring II. 35–36 according to the usual formulae, it appears that the \odot at the beginning of line 36 was almost certainly the first letter of the demotic of the secretary of the epistatae; and from Col. III, line 8, we learn that the demotic of the secretary for the third year was $\Theta o \rho \ell \kappa \iota o s$, a slight addition to our evidence. Fragment R, containing a few letters of an annual prescript, must likewise be assigned to the third year, the only vacancy on the obverse. Its letters, moreover, are so arranged that they fit the restoration of lines 37 and 39.

Ll. 35-36. — Ἐπικλές Θορίκιος is named in Col. III, line 8.

L. 38.—Here appear the names and demotics of the second and third epistatae (the first appeared in line 37), and the name of the fourth (his demotic is given in the following line). The name of the third epistates is perhaps $\mathsf{B} \; \mathsf{L} \; [\acute{\epsilon}\pi\nu\rho\sigma\mathsf{s}]$.

L. 39. — The demotic of the fourth and last epistates, beginning with AN, can be only 'Αναγυράσιος, 'Αναφλύστιος, or 'Ανακαιεύς; either of the two

former, 11 letters in length, would fit the space exactly.

The receipts begin in line 40; traces are preserved on both fragments E and R. The two fragments F + I, united by Bannier and assigned to our stell because of the formulae and the rough surface of the right edge (like that on the top of C + D), belong to the obverse, as is shown by the surface and the size and spacing of the letters.¹ They come, therefore, from the

¹ Cavaignac and Woodward assign them to the reverse, and so to the fifth year, for the same reason which identifies them as of the obverse, the style of the writing.

right edge of Column II, and contain receipts, so that they cannot be assigned to the second year, which closes its receipts in line 9. The third year is the only remaining possibility; they would then be placed below and to the right of E and R.

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In restoring fragments F + I, I have usually followed Bannier's readings (Ath. Mitt. 1902, p. 303).

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$$\hbar \epsilon \kappa$$
] A \leq TE \leq MEA, Bannier (l.c.).
['Ανδροκλές 'Αγ] A \leq IΓΓΟΦ \downarrow [$\nu \epsilon \nu \epsilon$ ς], Rangabé (Ant. hell. I, p. 164).

The remaining portion of Column II was occupied by the expenses of the third year. Of these no fragment can be placed with absolute certainty, but their conclusion is probably to be read on fragment A $(I.G.\ I,\ 116\ i)$, which is certainly from the end of a column, with 13 cm. of blank space now remaining below the last line. The surface is not so perfectly preserved as on most of the obverse, and there is a possibility that the fragment belongs to the reverse. I give it here, however, as of the obverse.

Fragment G, with numbers only, must be assigned because of its surface to the obverse, and because of the amount of space at the left of the sums, to Column II. Here it can be referred only to an expense account, for the spacing of the entries does not fit that of the receipts of the third year; it reminds one of the two-line expense items which come near the end of a year's account, as, for instance, in M. The grain of the top of the stone would seem to associate it with the mica veins at the bottom of C, so that it probably contains expenses of the third year, rather than of the second. Another fragment with numbers only, K, seems to record expenses rather than receipts, since even obols are mentioned. But whether it comes from the first, second, or third years can hardly be determined. It seems to me unnecessary to reprint these fragments, and I can add nothing to Kirchhoff's comment in the Corpus.

On turning to the reverse, we find that C + D, which formed the right-hand upper corner of the obverse, here belong to the left-hand upper corner. The text of these two combined fragments begins with the prescript of the fourth year, written in smaller letters which do not extend across the entire width of the stele, as at the top of the obverse, but only across Column III.

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L. 1.—This invocation, restored also by Bannier (*Berl. Phil. W.* 1911, p. 853), is similar to those which headed the accounts of the statue of Athena Parthenos (*I.G.* I, 298) or the Parthenon inventory for 422/1 (*I.G.* I, 170; Wilhelm, *Hermes*, 1901, p. 449).

L. 4.—API[$\sigma\tau$...] $O \le M$ [ελιτεύς], Kirchhoff; a trace of \sim as the eighth letter indicates that the name must be 'Αρίστυλλος.

L.5.—[-]EM(...)E[...Kirchhoff; I restore TIM $[\acute{o}\sigma\tau\rho\alpha\tau\sigma s]$ KE[...] to fit the space.

The receipts of this year, so far as they are preserved on fragments C + D, may be repeated almost without variation from Kirchhoff's restoration.

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At the left of the entry in line 7 is the sum -----] ΗΗΗΔΓͰͰͰ.

Ll. 11–12. — \$\text{POTOA}[\(\epsilon\epsilon\epsilon\) \$\text{KE}[\phi\omega\epsilon\epsilon\epsilon\), Kirchhoff; but Cavaignae (\$\text{Etudes}\$, p. lxxi) pointed out that instead of the supposed \$\Lambda\$ a vertical hasta was visible; I verified this, and found that the letter was clearly \$\mathbb{N}\$. The only possible Attic name of the proper length is \$\text{POTON}[\omega\epsilon\epsilon\]. Again, in the demotic, there are too few spaces for \$\text{KE}[\phi\omega\omega\epsilon\epsilon\]; we must read

 $KE[\rho a\mu \epsilon]Y \le$. It so happens that the only $\Pi \rho \omega \tau \acute{o}\nu i \kappa o \varsigma$ known in Attica is $\acute{\epsilon} κ$ $K \epsilon \rho a\mu \acute{\epsilon} \omega \nu$, on sepulchral inscriptions of about 400 B.C. (*I.G.* II, 1235, 1238); but he is not necessarily the same as our secretary.

L. 16. — \dot{a} or $\lambda_{\parallel} \Gamma O \leq TPATIA \leq \Gamma$, Kirchhoff; the last letter, Γ , is certainly to be read TI, and I can only suggest that the somewhat inappropriate word $\tau \iota \mu \dot{\epsilon}$ was written here by mistake; it does not appear in the similar entry in Column II.

A few traces of the expenses of the fourth year appear on the back of fragment E(I.G. I, 315 c); they show that the account ended in line 46.

L. 41.— $\lambda\iota\theta$ οτόμοις Πε] NTELESI, Woodward (l.c. p. 203); the space is, however, too great for this.

Ll. 45-46. — Woodward believes that this is a final statement of the financial position at the close of the work, and so would assign it to the fifth year.

It might be assumed that the prescript of the fifth year and the receipts are continued in Column III, but for the fact that the receipts appear also in ll. 19–26 of Column IV, on the back of fragment B (I. G. I, 312). From the obverse we learned that one year's accounts normally occupied two-thirds of a column; the receipts at the top of Column IV could not be those of an additional sixth year (throwing aside the testimony of Heliodorus), unless we suppose that the fifth year was squeezed into the lowest third of Column III, which seems impossible.¹ On the other hand, agreeing that the receipts on the reverse of B (Column IV) are those of the fifth year, they would have been overwhelmingly numerous if they had begun in Column III. It seems more probable that at the end of the year 433/2, the

¹ The accounts of the fourth year occupy about as much of Column III (ll. 1–46) as those of the first year cover in Column I (ll. 1–51), *i.e.* about two-thirds of a column.

secretary to the epistate, finding that the work was now ended because of the transfer of the energies of the state to financing the operations which began in the winter of 433/2 against Potidaea, and that economy of space on the stele was no longer necessary, began anew with Column IV for the accounts of the fifth year. There was a similar extravagance in spacing the account of the last year of the Parthenon, the same year 433/2 (A.J.A. 1913, p. 76). After the receipts of the fifth year, in line 27 of Column IV appears the heading 'Αναλόματα, and parts of these expenses are preserved in 11. 28-32. reading does not differ from that of the Corpus (I.G. I, 312), and I shall not therefore repeat the text. The expenses of the fifth year cannot have continued after line 40; for from line 41 to the bottom of the stele, a rough werkzoll (visible on E) occupies the space which would have been filled by the accounts of the completion of the building, if the work had not been interrupted at that point by the outbreak of the Peloponnesian War. The werkzoll here is as characteristic of the sudden cessation of work as are the werkzoll and bosses on the pavements and walls of the Propylaea themselves.

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ROMAN REMAINS IN THE TOWN AND TERRI-TORY OF VELLETRI¹

Velletri² (ancient Velitrae), in classical times one of the most important and prominent of the Volscian towns, famous also as the original home of the Octavian family,3 lies upon a low hill at the southeast edge of the Alban Range. At its back is the long ridge of the Artemisium, from which, however, it is separated by a distinct depression. That this was the site of the original Volscian as well as of the Roman town is almost certain, although for this there is no actual proof. The well-known bronze tablet of Velletri, written in the Volseian dialect, was found near the Chiesa delle Stimmate, originally called the Madonna della Neve. At the same time there came to light a number of fragments of a terra-cotta frieze. During the year 1910 slight excavations were conducted in the same neighborhood, and other terra-cotta fragments of the same character were discovered. These finds seem to indicate that here was situated a Volscian temple, upon the remains of which the present church was built.

We have traces of a still earlier settlement on or near the

¹ This investigation was undertaken at the suggestion of Director Jesse Benedict Carter, to whom, and also to Mr. A. W. Van Buren of the American School, and to Sig. Cav. O. Nardini, Inspector of Antiquities at Velletri, I desire to express my thanks for their assistance in its prosecution. I am indebted to Mr. J. H. Ten Eyck Burr for the majority of the photographs which appear in this article.

Dr. Thomas Ashby, Director of the British School in Rome, has very kindly given this article a preliminary reading and has, himself, gone over the ground covered by it. I wish to express my great indebtedness to him for countless suggestions and several very important additions.

² To the full bibliography given by Tomassetti, *La Campagna Romana*, Vol. II, pp. 346 ff., should be added Attilio Gabrielli, *Illustrazioni Storico-Artistiche di Velletri*, Velletri, 1907; and Augusto Tersenghi, *Velletri e le sue Contrade*, Velletri, 1910.

³ Suetonius, Aug. 1.

⁴ Mommsen, Unterit. Dial. 320; Fabretti, Corpus Inscript. Italic. 2736; Deecke, Rh. Mus. XLI, 1886, p. 200.

site. In 1893 a tomba a pozzo of the Iron Age was found near Velletri in the Vigna d'Andrea to the south of the former Vigna Barbi, now the experimental station for American vines, to the east of the town. The tomb had a beehive roof, and was 1 m. high and 1 m. in diameter. (T.A.)

The strategical position of Velitrae was important, inasmuch as it commanded from its position on the southern slopes of the outer rim of the Alban Volcano the passage between it and the Volscian Hills, and enjoyed a fine view of the whole Pontine Plain. The site of the town itself was rendered very strong by nature, as it is almost entirely surrounded by deep ravines except on the south, where the ground slopes away gradually towards the plain. On the north, only a narrow neck connects it with the higher ground behind.²

What is known of the history of Velitrae may be summarized very briefly.³ In all the various struggles between the Volscians and the Romans, as recounted by Livy, Dionysius, and others, its inhabitants played a prominent part. Dionysius ⁴ places the first conflict between Velitrae and Rome in the time of King Ancus Marcius. The annalists, therefore, considered the town as having belonged originally to the Volscians. This is, however, generally regarded as unlikely. It was probably originally a Latin settlement, and was captured by the Volscians at some time not far from 499 B.c.⁵ The people of Velitrae are credited with having shared in the defeat administered to the Latins by the Romans at Lake Regillus. About the year 494 a Roman colony was placed in the town.⁶ This was enlarged by new colonies sent in 491 ⁷ and in 404 B.c.⁸

In 393 the struggle was renewed, and subsequent encounters, with defeats administered to the people of Velitrae, are

¹ Barnabei in Not. Scav. 1893, p. 200; Pinza in Mon. Ant. XV, 1905, p. 342.

² Nissen, Italische Landeskunde, II, 2, p. 632.

³ Mommsen, C.I.L. X, 1, p. 651; Nibby, Dintorni di Roma, III, pp. 438 ff.

⁴ III, 41.

⁵ Nissen, *Italische Landeskunde*, II, 2, p. 632; Ihne, *History of Rome*, I, p. 232. Mommsen (*History of Rome*, V, p. 445) considers Velitrae as originally Volscian.

⁶ Dionysius, VI, 42; Livy, II, 30.

⁷ Dionysius, VII, 12; Livy, II, 34.

⁸ Diodorus, XIV, 34, 7.

recorded as taking place continuously down to 338 B.C. In that year occurred the great contest between the Romans and the Latin League. The people of Velitrae, together with those of Aricia and Lanuvium, suffered final defeat at the hands of C. Maenius at the river Astura. Among the punishments inflicted by the Romans, that of Velitrae was most severe. Its walls were thrown down and its senators were deported to Rome and caused to dwell across the Tiber. The confiscated lands were conferred upon Roman colonists.²

From this time, with the exception of a passage in Silius Italicus,³ who mentions Velitrae among the colonies which sent their contingents against Hannibal, the references are scattered and of no historical importance, and we hear little or nothing of the place except as the home of the *gens Octavia*. Then, as now, its wine was famous, although, according to Pliny, inferior to Falernian.⁴

ROADS 5

De la Blanchère ⁶ enumerates the following roads as radiating from Velitrae:

- 1. A road to Lanuvium, which would correspond with the old track going westward from Velletri past S. Nicola and S. Eurosia to the Casale dei Gendarmi, where it joins the modern Via Appia Nuova. Upon this track there are now no traces of paving in situ, but there are several cuttings which are probably of ancient origin. Along the track going north to the west of S. Nicola, there are numerous paving-stones, which, whether they belong to the main track or to the side path, seem, at least, to prove the antiquity of the former, while the side path also has some ancient-looking cuttings.
- 2. A road to Torre del Padiglione, or rather Campomorto (the so-called Selciatella di Lazzaria), which passes by the ruins known as Sole e Luna.

¹ Livy, VIII, 12 and 13; Ihne, l.c. I, p. 363.

² Livy, VIII, 14, 5.

³ VIII, 377.

⁴ Pliny, Nat. Hist. XIV, 65.

⁵ The following notes on roads were given me entirely by Dr. Ashby.

⁶ 'Un Chapitre de l'Histoire Pontine' (in Mémoires presentés à l'Académie des Inscriptions et Belles-lettres, Vol. X), p. 48.

- 3. A road to Satricum, traces of which were seen by him in the Vigna Capoccio in the Regione Paganica in 1884. They are still visible. According to him, it divided before reaching the Via Appia, one branch going to Campomorto on Conca, the other towards Sessano. The former would, no doubt, be the road which passes close to the Cento Archi (Cento Colonne) and Civitana.
- 4. A road to Cori, of which he saw traces. It passed close to the Torrecchia Vecchia.
- 5. A road to Giulianello, of which he also saw traces (the Via Piazza di Mario). The pavement of this may still be seen $in \ situ$ at the Casale Belisario, where it is 2.10 m. i.e. 7 Roman feet in width.¹
- 6. A road to the Civita above Artena, the pavement of which was found in 1899 at about 3 kilometres from Velletri on the modern road to Lariano, at a place called Pietre Liscie,² while De la Blanchère saw traces of it farther on near Fontana di Papa. A branch of it, as he rightly says, ran on to the Via Latina.³

To the roads enumerated by De la Blanchère should be added:

- 1. A track going due west from the Porta Romana at the north end of the modern town, and entering the highroad ⁴ between the twenty-sixth and twenty-fifth miles from Rome. It leaves this again a little to the west of the twenty-fifth mile, goes northwest past the Casale Rossetti and the Fontana Pelara, and to the north of the Monte Canino, entering the road from Nemi to Genzano to the east of the Casale Fornaccio.
- 2. There may well have been a road to Nemi or the Valle Vivaro passing over the rim of the outer crater of the Alban Volcano. A path ascending northward from the Porta Romana past the Cappuccini and the Villa Antonelli seems to be of ancient origin in its first portion, having some paving-stones as curbstones and being sunk in a deep cutting; but the evidence is not sufficient to affirm the antiquity of this or of any of the

¹ On the left of this road, about 2 kilometres from Velletri, in the place called S. Anna, in the Vigna Pocci a leaden coffin was found with the skeleton of a woman and a coin of Aurelian (?) (*Not. Seav.* 1909, p. 59).

² Not. Scav. 1899, p. 338.

³ Papers of the British School, V, p. 418.

⁴ The highroad referred to is not the new road followed by the electric tramway.

other paths which ascend the mountain behind Velletri. The tufa rock is soft and a deep depression may easily have been created by the traffic of centuries.

CITY WALLS

After the destruction of the walls of the city in 339 B.C., no mention is made of any restoration. In the Notizie degli Scavi¹ are reports of the discovery of some foundations of the ancient wall. None of them are now visible. The excavations in which they were discovered were made on the site of the ancient necropolis. From the fact that the graves dating from the Roman period lay within the circuit of the wall, Di Tucci, the inspector of antiquities at that time, concluded that the Roman city was somewhat smaller in size than that of Volscian times.

The lower parts of the south and west walls of the church of San Giuseppe are composed of large rectangular blocks of tufa, of which on the south side there are six rows. Tersenghi² connects these with another wall discovered by Di Tucci while making repairs to the church of S. Michele Arcangelo in 1874, and concludes that they form part of the ancient wall of the Arx of the city. However, the blocks in the wall of San Giuseppe are obviously not in situ, but have been relaid in the construction of the church. They may very well have come from an ancient wall in the neighborhood. The church in question stands at the foot of the slight eminence upon which stands the Palazzo Municipale, and which must have served as the Arx, if any such existed.

TEMPLES

From the authors and from a few inscriptions, we know of several temples which must have stood in the city itself or in the immediate neighborhood.

Apollo and Sancus, Hercules.—The existence of these temples is proved by Livy, XXXII, 1, 10: "... et Veliterni Apollinis et Sanci aedes, et in Herculis aede capillum enatum." Their location is entirely unknown.³

¹ 1880, pp. 168 ff.; 1885, p. 47.

² *l.c.* p. 56.

⁸ Bauco, Storia della citta di Velletri, I, p. 480; Gabrielli, l.c. p. 61; Nibby, Dintorni di Roma, III, p. 446.

Mars. — Our only evidence is Suetonius, Aug. 1: "et ostendebatur ara Octavio consecrata, qui bello dux finitimo, eum forte Marti rem divinam faceret. . . ." This passage may refer, however, simply to an altar and not to a temple. In accordance with their usual custom, the local historians identify the site of the temple with that of the present church of San Clemente. Borgia,¹ on the strength of C.I.L. X, 1, 6582, discovered while excavating for the foundations of the episcopal residence, identified some remains of opus reticulatum, found in 1778 near the entrance of the church and later destroyed, as belonging to the temple.² There are now no remains or authentic proof for this temple.

Immediately back of the apse of San Clemente is a large underground water reservoir of Roman construction. It consists of two vaulted chambers, each about 20 m. long and 3.50 m. wide. The top of the roof is 3 m. above the present floor level. The two chambers are connected by eight arched openings, each being 1 m. wide. The whole is built of concrete and lined with opus signinum. Volpi, without reason, attributes it to the temple of Mars.

Sol and Luna. — From the name Solluna, now given to a section of the territory of Velletri near the line of the old Via Appia, about 4 kilometres from Velletri, it might be possible to conclude that here was located a temple of Sol and Luna, though the conjecture is, of course, a doubtful one. In 1905 there were discovered a large number of terra-cotta votive offerings which may have come from the old temple.⁴ A platform (about 40 m. × 20 m.) extending from east to west, and distant about 60 m. from the place where the terra-cottas were found, may belong to the foundations of the temple.⁵

At this point for a considerable distance there is a splendidly preserved portion of the Via Appia. The entire width of the

¹ De Cruce Veliterna, p. 211, note a.

² Cf. C.I.L. X, 1, 6582 and references.

³ Volpi, Vet. Lat. IV, p. 37 and tav. 1.

⁴ Not. Scav. 1905, p. 40.

⁵ Bauco, *l.c.* I, p. 481; Volpi, *l.c.* IV, p. 48 and pl. 8, who figures ruins on each side of the road, the nature of which is by no means clear. Dr. Ashby states that his identification of these remains with the tomb drawn by Labruzzi (III, p. 50; cf. *Mél. Arch. Hist.* XXIII, 1903, p. 402) is erroneous.

road is 8 m., the central portion being 4 m. in width. The paving of the centre is entirely preserved, while on either side at a distance of 2 m. the boundary stones are plainly visible.

Fortuna. — The only evidence is C.I.L. X, 1, 6554. | . . . | Geminus . . . | praetor q. IIII | . . . succe . . . | . . . Antoni . . . | . . . | aedes. Fortunae.

OTHER REMAINS IN THE TOWN

Two public buildings other than temples are known, both mentioned in inscriptions.

Basilica. — In the north wall of a building facing the Via Metabo just as it enters the Piazza Umberto I is the inscription C.I.L. X, 1, 6588 (s. m. f | faci undam curavit | . . . o. ad. basilicam), which may refer to a basilica. At present the only letters visible are M, and in the next line below, DA. The whole wall has been covered with plaster, which may conceal the other blocks of peperino referred to by Stevenson.

In the building immediately across the short street leading from the Piazza Umberto I to the church of San Clemente, and facing the one mentioned above, the north wall, 5 m. in length, and the west wall immediately adjoining for a length of 3 m. are formed of large regular tufa blocks. These belonged to an earlier building and are much weathered. They are visible only in the interior. They must have been taken from some Roman wall in the immediate neighborhood.

Amphitheatre. — A restoration of the amphitheatre at the time of the Emperors Valens and Valentinian (364-375 A.D.) is mentioned in C.I.L. X, 1, 6565.³ This is the only reference to such a building, but proves its existence.

To the west of the Porta Napoli there is a small piece of opus reticulatum in selce, and the south half of the stretch of wall going north from this point is built upon Roman concrete of selce with a reticulatum wall about 3 m. in front of it. These walls may be the lower part of a cryptoporticus. (T. A.)

In 1903 a tomb was discovered within the city in the cellar

¹ Cf. discussion in C.I.L. l.c.

² Cf. C.I.L. l.c.; Bauco, l.c. I, p. 482.

³ Now in the museum at Velletri.

of a house at No. 104 of the Via Paolina. In it was a sarcophagus of peperino, which contained a skeleton with two vases of the Iron Age and two Campanian vases which Nardini attributes to the first century B.C.¹ (T. A.)

TERRITORY OF VELLETRI

In the territory immediately surrounding Velletri there are numerous remains of Roman work, and there is evidence for the existence of a number of Roman villas, either in the form of walls existing at the present time, or in the names of the localities in which they were situated.

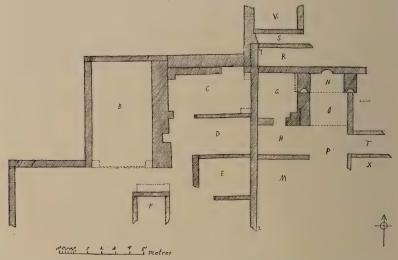


FIGURE 1. - STATION VILLA. PLAN OF MAIN GROUP OF ROOMS.

At the side of the road leading from the town to the railway station, in what are now the public gardens, as the result of excavations there have come to light a number of walls probably belonging to a small Roman villa. The plan of these is given in Figure 1.

The main group of rooms is divided into two parts by a wall of large tufa blocks which runs through the whole width of the building (Fig. 2). These blocks vary in length from 1.70 m. to 2 m. and in width from 0.43 m. to 0.50 m. At its north end

¹ Not. Scav. 1903, p. 228.

the wall is six blocks in height, then five, and finally four. There is no communication through this wall between the rooms on either side. In addition, blocks of tufa are used in the construction of several of the other walls, as for example in the wall between H and M, both walls of X, the wall between C and D, and the west wall of E. The presence of other blocks, such as a line in front of B and another back of F, is indicated by dotted lines.



FIGURE 2. - STATION VILLA. WALL OF TUFA BLOCKS.

The walls as a rule are built of concrete faced with opus mixtum or opus incertum. The opus mixtum varies from very good work with rectangular blocks of selce and regular courses of brick (see Fig. 2) to very rough work with irregularly shaped blocks of selce and bricks following no exact lines. Opus reticulatum occurs only in the central niche of N, a small piece 0.65 m. wide in the south wall of H at a height of about 1 m., where it joins the long tufa wall, another small piece in the north wall of G, and some at the bottom of the wall between H and G.

In the front of each side wall of N there is a small niche made of brick (Fig. 3). They are the only portions of the building in which brick is used alone as a facing. The walls themselves, which are unusually thick, are of concrete. The interiors of these niches were lined with stucco. In the north wall of N is a larger niche, already referred to. The walls of N were originally faced with marble (as was also the front of each side wall), the holes for attaching the slabs being still



FIGURE 3. - STATION VILLA. NICHES.

visible. The room was covered with a vaulted roof. The use of this room is not easy to determine. It may have served as a small chapel. The floor level is slightly higher than that of O, which in turn is higher than that of P.

At another period, by the building of the side walls of O, the two small niches must have been completely blocked up. Possibly at the same time the floor level of H was lowered. The present pavement of H is formed of opus signinum. Originally, however, it consisted of a black and white mosaic, as is proved by the fact that the south end of the west wall of O

was built on top of the mosaic floor of H, of which there are traces beneath the wall at a level 0.10 m. higher than the present floor level of H.

The pavement of M is formed of a black and white mosaic (Fig. 4). The pattern in white occupies merely the middle of the room, while all around is a broad band of black, the



FIGURE 4. - STATION VILLA. MOSAIC IN ROOM M.

individual cubes becoming coarser and larger as they approach the wall, until finally they are laid flat instead of on end. This would seem to indicate that only the pattern was intended to be visible. Possibly, therefore, this room served as the triclinium with the couches resting upon the black border. As the same form of pavement is found in H, the two rooms may originally have been united. The intervening wall may, then, have been built later, at the time when the west wall of O was built and the floor level of H was lowered.

The floor of G, which is 0.25 m. above that of H, was paved with marble. It is entered from H through an opening 0.90 m. wide, and in the wall at each side of the entrance, at a height of 0.23 m., is a slab of travertine 0.46 m. $\times 0.34$ m. $\times 0.10$ m. (see Fig. 2). Before the west wall of O was built, G must have been directly accessible from O. In about the middle of



FIGURE 5. - STATION VILLA. WESTERN ROOMS.

the north wall is a break. Originally the part of the wall to the right of the break must have been lacking and there was access here to rooms at the back of G.

The walls of the rooms to the west of the long tufa wall (Fig. 5) are not exactly in line with those to the east, but meet the tufa wall at a slight angle (doubtless due to their slipping down the embankment). The walls of room B were covered with stucco, and there are still a few traces of painting. The floor level is 0.60 m. above that of the adjoining rooms and along the front is a row of tufa blocks. In the

middle of the north wall there seems to have been an opening which was later filled in.

Immediately back of room G are two passages, R and S, and a small room, V. Both R and S are too narrow to have served as rooms, and may have contained stairways to an upper story. The west wall of R is formed by a continuation of the long tufa wall, while the west walls of S and V, as well as the other walls, are of concrete. At about the middle of R, the top of a cross-wall of opus reticulatum is visible. These rooms may have been accessible from G.

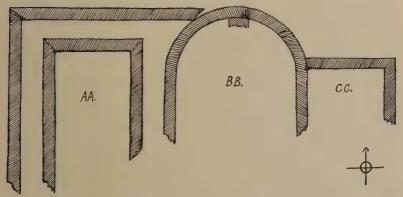


FIGURE 6. — STATION VILLA. ROOMS AA, BB, CC, PLAN.

At about 30 m. to the west of the main group is a second (Fig. 6) consisting of three rooms. The one farthest to the west, AA (Fig. 7), consists of two sets of parallel walls with a passage between. In the northeast corner of this passage are two steps, and in the east corridor is a very well-preserved mosaic pavement. It consists of alternate squares of a white figure on a black ground and of a black figure on a white ground (Fig. 8). The walls are faced with opus incertum, but in the inner walls a number of flanged tiles are used. In these the flanges are retained, and the tiles are laid in such a manner that the flange is on the outside of the wall. From the north outer wall rises the beginning of a vaulted roof.

The adjoining room BB consists of an arc of a circle with the ends on each side prolonged in a straight line to the south. The walls here also are of *opus incertum* with a few flanged tiles. At the central point of the apse is a small concrete base 0.80 m. long, which possibly served as the base of a statue (Fig. 9). Next to this room is the much smaller one, CC.

Still farther to the west are a number of walls, probably those of rooms. However, they are so scattered that no regular plan can be made.

It is impossible to assign any definite date to this structure. As has been said, there must have been several periods, the



FIGURE 7. - STATION VILLA. ROOM AA.

oldest represented by the existing tufa wall. On account of the rough workmanship, the majority of the walls would seem to belong in general to rather late Roman times. During the excavations the brick-stamp, C.I.L. XV, 1, 1334, dating from the first century A.D., was found.

Villa Negroni. — We may place the site of an ancient villa on the slope to the west of the Villa Negroni to the north-north-west of the town, where there is much débris on the surface of the ground, although no walls are visible, having been buried under the accumulation of soil. (T. A.)

Monte Artemisio. — A mile and a half to the north of the city, below the contrada del Peschio, on the lower slopes of the Monte Artemisio and not far, probably, from the Villa Negroni, excavations were made in 1794 in the remains of a Roman villa of opus reticulatum. Some fragments of sculpture were found, and an hermaphrodite lying on a rock. (T. A.)

San Cesareo. — The vineyard known as San Cesareo (Vigna Marchetti on the Italian map) lies about three kilometres to

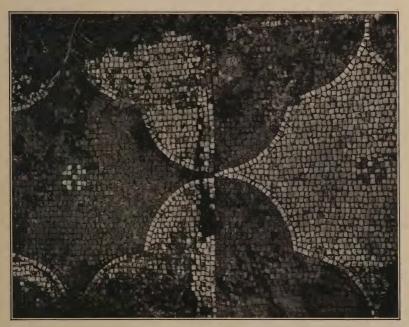


FIGURE 8. - STATION VILLA. MOSAIC IN AA.

the west of Velletri.² Here are the remains of an extensive Roman villa, and, doubtless owing to the name of the locality, it has been popularly identified as the villa of the Octavian family to which the Emperor Augustus belonged.³ Such a villa is mentioned by Suetonius.⁴ Here were found in 1780 a head

¹ Cat. Louvre, No. 323; Froehner, Notice, No. 375; Visconti, Opere Varie, IV, p. 59, note 2.

² By road, but only a mile (about 1.60 km.) in a straight line.

³ Tomassetti, La Campagna Romana, II, p. 350; Bauco, l.c. p. 472.

⁴ Aug. 6.

of Augustus with the civic crown 1 and a bust of Hannibal, both now in Naples.

The villa was built upon a large terrace measuring approximately 115 m. × 80 m. and facing towards the south. At the southwest corner there is visible a small portion of the retaining wall of concrete faced with opus reticulatum. The northern boundary is formed by a second terrace, against the front of which several rooms were built. A number of the walls are



FIGURE 9. - STATION VILLA. ROOM BB.

still standing. In one of these rooms fragments of the stucco facing can be seen, as well as the beginning of a vaulted roof, belonging probably to a cryptoporticus.

To the west of these rooms and extending back into the upper terrace is a very well preserved water-reservoir (Fig. 10). It consists of three parallel chambers, each 15 m. long, 4 m. wide, and 2.40 m. high.² Each chamber communicates with

 $^{^1}$ Bauco, $\it l.c.$ I, 479; Winckelmann, $\it Werke, VI, p. 172$ n.; Bernoulli, $\it R\"om. Ikon. II, 1, p. 37, n. 1.$

² Gatti, Not. Scav. 1910, p. 188.



FIGURE 10.—SAN CESAREO. RESERVOIR.



FIGURE 11. - SAN CESAREO. SEMICIRCULAR BASIN.

the next by means of five arched openings, the arch in each case being pointed. The vaulted roofs of the chambers are also slightly pointed. The walls are lined with opus signinum.

On the western edge of the terrace are three structures forming a part of the baths of the villa. That at the northwest



FIGURE 12. - SAN CESAREO. BUTTRESS.

corner (Fig. 11) consists of a semicircular basin with a diameter of 8.50 m. It was heated by a hypocaust, the floor being supported by pillars of tiles. In front of this are the foundations of a smaller square room with dimensions of about $2.90 \,\mathrm{m.} \times 2.90 \,\mathrm{m.}$ The wall of the semicircular structure contains, five niches, of which the central one is semicircular. is 1.30 m. wide, 0.75 m. deep, and 2.10 m. high. On either side of this are two rectangular niches 2.40 m. wide and 0.60 m. deep. The central niche is faced with opus reticulatum, the others with opus mix-

tum of selce and bricks. Below the niches a band of opus reticulatum extends around the room. Above the central niche are the beginnings of a vaulted roof.

Behind each niche at the back of the wall is a buttress of concrete (Fig. 12) faced with *opus mixtum*, measuring about 1.07 m. ×1.06 m. Four of these buttresses are well preserved, while

that farthest to the left is still buried in the ground. Between the first and second buttresses, starting from the right, and between the third and fourth are two small square passages through the wall just above the ground, probably for the passage of water.

At a short distance to the south are the remaining two structures. The tops of the walls are now all on a level with the surrounding ground, and they may never have risen above this. The first is circular in shape, with a diameter of about 5.50 m. The second consists of three apses, the central one having a diameter of 4 m., while the two side ones are smaller. The large apse is entirely filled in by a platform of concrete faced with brick, except for an open passage of the shape

shown in figure 13. The wall of the first structure is faced with very rough opus reticulatum, that of the second with opus mixtum. Both structures have drains for the passage of water.

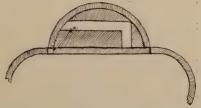


FIGURE 13.—SAN CESAREO. STRUC-TURE WITH THREE APSES.

On the eastern edge of the terrace are the badly damaged

walls of a vaulted room. Near it are two large masses of concrete, showing on one side part of a vault, on the other a mosaic pavement formed of small cubes of selce 0.015 m. to 0.02 m. square, and 0.028 m. deep. Scattered over the vineyard are architectural fragments, such as bits of mosaic pavement, portions of columns, and so on.

In the south wall of a house built into one of the rooms of the Roman villa, the walls of which are composed largely of ancient fragments, several letters of an inscription on a slab of travertine can be distinguished. The inscription was evidently broken up to serve as building material, and only four small fragments are now visible. On one are the letters $\frac{DV}{CC} \frac{DV}{CC}$ or if reversed $\frac{DI}{CC} \frac{DI}{AC}$; on the second $\frac{IM}{C}$; on the third $\frac{VC}{CC}$; and on the fourth OP.1

 $^{^1}$ Dr. Ashby reads the second fragment $^3_{MI}$. The first line of the third is not plain; Dr. Ashby notes RIC and a fragment of a V.

Numerous brick-stamps have been found at San Cesareo and are published by Gatti.¹ They date from the year 123 A.D. This date is in general harmony with the type of construction in the walls still standing. Gatti distinguishes several periods in the building, placing the original construction in the first century A.D., with several successive reconstructions down to the fourth century. There does not seem to be sufficient evidence to justify this, however, in the scanty remains now standing.

Rioli. — In the district known as Rioli, to the west and southwest of San Cesareo, there was evidently a villa built upon two



FIGURE 14. — RIOLI. RESERVOIR.

terraces facing south. A small piece of the retaining wall of the upper terrace, built of concrete faced with *opus incertum*, can still be seen. On the east edge of the lower and larger terrace the retaining wall is visible for some distance, and reaches the height of 3.50 m.

Upon the upper terrace is a water-reservoir the exterior of which forms a rectangular platform of concrete 3 m. in height at its highest point (Fig. 14). The interior of the reservoir consists of four chambers, each 35.50 m. \times 3.50 m. They communicate each with the other by means of thirteen arched open-

¹ Not. Scav. 1910, p. 190. To the list given by him Dr. Ashby adds the following, which he saw at Velletri in June, 1905: C.I.L. XV, 272, 447, 454 C, 494 A (all 123 A.D., the last two in situ), 580 b (Hadrian), 1230 (124 A.D.), 1339 (123 A.D.).

ings, each of which is 1.30 m. wide. The top of the vaulted roof is 4 m. above the floor level.

Colle Ottone. — On the Colle Ottone at or near the Casa Filippi, which had formerly belonged to the Toruzzi family, Volpi¹ saw the ruins of a large reservoir, 140 palms long and 40 palms wide (31.22 m. × 8.92 m.), divided into three chambers by two walls, in each of which were ten arched apertures. He describes it as the ruins of a most magnificent villa, said to have belonged to the Emperor Otho. He also notes the existence of fragments of a mosaic pavement. The Casa Filippi is situated some three miles to the west of Velletri, a little to the north of the railway, and to the south of the Casotto dei Gen-



FIGURE 15. — CENTO ARCHI.

darmi.² Several inscriptions are said by the older authorities to have been found in this immediate neighborhood.³ (T. A.) Cento Archi (Cento Colonne). — Along the course of the Via Appia where it passes through the territory of Velletri are several interesting remains of Roman work. One of the modern roads leading from the Porta Napoletana intersects the Via Appia at a distance of about 5 kilometres from the city. At this point the ancient road crosses a small stream on a bridge

 $^{^1}$ Vet. Lat. IV, p. 60 and tav. 9 ; cf. Bauco, l.c. I, p. 472 ; Teoli, Teatro istorico di Velletri, p. 108.

² See above, p. 401.

 $^{^3}$ C.I.L. VI, 8526, 17682 ; X, 6553, 8053, 55, C ; Teoli, l.c. p. 108 ; Volpi, l.c. IV, p. 41 ; Cardinali, $Iscr.\ Vel.$ Nos. 3, 169.

of Roman construction, known as the Ponte di Miele. It consists of a single arch, about 4 m. high, formed of large tufa blocks.¹

Proceeding south from this point along the Via Appia, of which a considerable amount of the old paving is preserved, we soon reach a branch road 2.40 m. in width, which, about 90 m. farther on, passes the remains of a large reservoir covering a space of 39.14 m. $\times 21.3$ m. (Figs. 15 and 16). This is known as Cento Archi or Le Cento Colonne. It consists of five chambers opening one into the other by means of nine

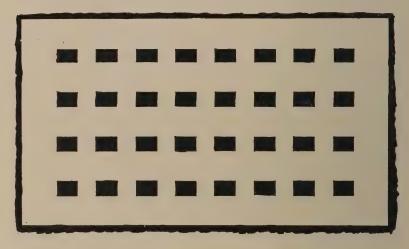


FIGURE 16.—CENTO ARCHI. PLAN OF RESERVOIR.

arches. Originally there were thirty-two pillars, of which four are now destroyed. The roof of each chamber (3.50 m. high) was formed of quadripartite vaulting, which is now broken through in many places. The whole is built below ground, the top being on a level with the surrounding country. The construction is of concrete faced with opus mixtum. Volpi² gives a drawing of this reservoir. The plan in the text, which is based on measurements taken by Professor Lanciani, was drawn by Mr. F. G. Newton, a student at the British School at Rome.

¹ Cf. Mél. Arch. Hist. XXIII, 1903, p. 402 (Labruzzi, iv, 3).

 $^{^2}$ $\it l.c.$ IV, p. 78 and tav. 3 ; cf. Tersenghi, $\it l.c.$ p. 303 ; De la Blanchère, $\it l.c.$ p. 6.

Civitana. — A short distance beyond Cento Archi the branch road already mentioned reaches some remains known as Civitana (marked as Torre Monaci on the map of the Istituto Geografico Militare). These stand upon a large terrace measuring 120 m. from north to south. The retaining wall is visible to a considerable extent. Thus, at the northwest corner there is a concrete wall faced with selce, about 3 m. high at the corner and running east for a distance of 10 m., where it



FIGURE 17. - CIVITANA. RETAINING WALL.

disappears in the ground. In the middle of the western side of the terrace it is again visible for about 10 m. Here there is one buttress. From this point it appears in small patches, until, at the southwest corner, there is a stretch of 15 m. with two buttresses about 6 m. high. It then continues around the south side of the terrace for about 10 m., where it again disappears in the ground. The top stones are visible projecting out of the ground all along the south and east sides (Fig. 17).

Upon this terrace all that remains at present are the walls of a rectangular building 25.80 m. × 11.60 m. in dimensions, with its long axis running from north to south, and divided longitudinally into two chambers by a wall 0.90 m. thick.¹ The walls are built of opus reticulatum of tufa and selee with bond-

¹ On my visit I failed to note the dividing wall, but this omission has been corrected by Dr. Ashby.

ing courses of brick. Exactly similar construction is found in the Villa of Hadrian at Tivoli, and these walls may therefore date from the same period. From the east and west walls, at a height of 2.80 m., rise the beginnings of the vaulted roofs.

The north wall of the enclosure has been greatly damaged, although it was built up again in a later period. In the upper part near its eastern end is a small rectangular window. There are now no traces of any ancient door or means of entrance into the enclosure, and the structure is in all probability a reservoir.

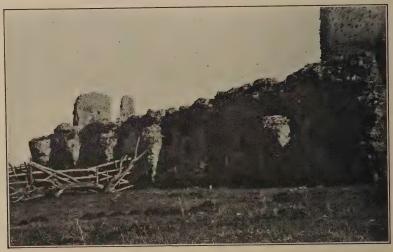


FIGURE 18. — CIVITANA. WALLS AND BUTTRESSES.

The walls are strengthened on the outside by a number of buttresses of the same construction as the walls. Of these there are seven on the east and west sides, four on the south, and three on the north, where, however, there was probably a fourth which has been destroyed (Fig. 18).

East of the main building, in line with the north wall and at a distance of 28 m., are three low mounds of concrete, which would indicate the existence of walls at one time.

¹ De la Blanchère, indeed, found here a brick-stamp of 123 A.D., *C.I.L.* XV, 549 e. 52 (*Mél. Arch. Hist.* II, 1882, p. 463). Cf. *C.I.L.* XV, 551 a. 3 (about the same date), found by him in some other ruins in this district, the site of which he does not more accurately indicate. (T. A.)

De la Blanchère ¹ states that here in the Middle Ages was the centre of a large estate and that there were numerous buildings, all of them built within and upon old Roman constructions. The building now standing contained the church. Volpi ² gives two drawings of Civitana, one an outside view showing the buttresses, the other a view of the interior. In the latter he shows a tower which has since been demolished, but he gives no indication of any division.

Ponte delle Incudini. — At a distance of about five kilometres from Velletri lies the district to which is given the name of "Incudini" (anvils). The name is derived unquestionably



FIGURE 19. - INCUDINI. AQUEDUCT.

from the shape of the remains of an aqueduct which are found here (Fig. 19).

At the point where the aqueduct is preserved it is crossing from west to east a small valley about 150 m. wide between two ridges. At its western end the structure upon which the specus ran immediately after leaving the ground is still standing. Then follow four pillars for the support of the arches, of which the first and third are still standing upright, while the second and fourth have fallen. The width of the pillars is about 4.50 m. and the height of the third and highest arch is 5 m. The material is opus mixtum.³

In the centre of the valley no part of the aqueduct is left;

^{1 &#}x27;Un Chapitre de l'Histoire Pontine,' p. 7. 2 l.c. IV, tav. 4. 3 Cf. Mél. Arch. Hist. XXIII, 1903, p. 403 (Labruzzi, IV, 5).

but on the east side are the lower portions of three pillars. There is no means of knowing what locality was supplied with water by this aqueduct.

To the northeast of the aqueduct at a distance of 1.50 m. is a small water-reservoir consisting of a single chamber of the dimensions of 9.50 m. × 2.20 m., with a vaulted roof 1.90 m. high. The outside of this forms a rectangular platform. It is built of concrete, and the interior is lined with opus signinum.

On each side of the Via Appia at this point is a terrace supported by ancient retaining walls of concrete, that on the north (Fig. 20) being 50 m. distant from the road, that on the south 150 m.



FIGURE 20. — INCUDINI. TERRACE.

Vigna Mercadora. — In the Vigna Mercadora, a short distance northwest of Incudini and to the left of the Via Appia, are a number of scattered walls indicating the presence of a rather extensive villa. In particular, there is a long retaining wall extending from east to west for a distance of 100 m. Several fragments of walls faced with opus reticulatum are visible, and in one place two ancient steps.

Along the Via Appia, the Roman pavement of which is frequently visible, between this point and Incudini, there are on either side of the road the remains of several tombs. None of these are of especial interest except one, of which only the foundations are left. It is in the shape of a Greek cross, each pair of arms measuring 6 m. in length, and each arm being

1.70 m. wide. Each arm was divided into three compartments by two parallel walls.

VELLETRI

Troncavia. — The statue of Minerva known as the Pallas of Velletri, now in the Louvre, was discovered in 1797 in the locality of Troncavia or Corti, about two kilometres from Velletri, and a bust of Tiberius was found here in 1817. Very recently there was found in the same locality in the Vigna Paparella a portion of a fine marble lamp, and at the same time ancient walls and water pipes of lead and terra-cotta were seen. A fine Gorgon's head in terra-cotta had been found there a few years before. There is still visible a water-reservoir consisting of four chambers, each measuring 12. m. × 2.90 m. Two of these are connected by three openings, each 2.90 m. wide, of the same shape as those in the reservoir at San Cesareo. Between the second and third chambers and the third and fourth only two openings in each case are preserved. They are of the usual rounded shape.

Cento Cappelle. — In Not. Scav. 1878, p. 38, there is a report of the discovery of some ancient walls in the district known as Cento Cappelle, near the town of Lariano, about four kilometres from Velletri. The brick-stamp C.I.L. XV, 702, 14 (Hadrian) was found at that time, and still earlier, in 1872, three statues of athletes were discovered here. At the present time there is visible only an artificial terrace, the concrete retaining walls of which appear at intervals. In 1900 part of another villa was found in the wood on the slopes of the Monte Artemisio above Lariano. Remains of baths were discovered with the brick-stamps C.I.L. XV, 173 (a little after 138 A.D.); 1121 (first century A.D.); 2332 (first century A.D.), and in a vineyard not far off an elegant mosaic pavement belonging to another villa was found.

Several other villas are known to have existed in the territory of Velletri. In some instances they have given their

¹ Visconti, Opere Varie, IV, p. 288; Froehner, Notice, No. 114; Cat. Louvre, No. 464.

² Bauco, l.c. I, p. 479.

³ Now in the museum at Velletri.

⁴ Not. Scav. 1909, p. 28.

⁵ Bullettino della Commissione Archeologica Municipale, 1876, p. 68.

⁶ Not. Scav. 1900, 52, 96.

names to the localities in which they were situated. In the case of many of them writers such as Borgia, Bauco, Teoli, and others state that they have seen remains of walls; but these have now almost entirely disappeared. Thus the district known as Tivera is identified as the villa of Tiberius¹; Colle Nerva, as that of the Emperor Nerva²; and so on. These identifications, of course, must not be taken too seriously. That the Emperor Caligula also had a villa here we know from Pliny,³ who speaks of the wonderful plane tree growing there, so large that a whole dinner party could find room under its branches.

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ADDENDA

(By Dr. Thomas Ashby)

Among the many antiquities found at Velletri, without any more precise indication of their provenance, we may note:

A colossal head of Aesculapius, a statue of Thaleia, and the head of a warrior originally from Asia Minor (Ny-Carlsberg, 91, 396, 446).

A fragment of a sarcophagus representing the banquet before the Calydonian Hunt was drawn in 1722–32 by Edme Bouchardon a Velletri in casa d' un particolare, but is now lost (see Robert, Sark. Rel. III, p. 327, No. 264²).

Volpi (Vet. Lat. IV, p. 37 and pl. ii) figures four Corinthian columns which he saw in the garden of the Palazzo Ginnetti, and which he attributed to the temple of Mars—without adequate reason.

Volpi, pls. v and vi, figures four sarcophagi in the Palazzo Ginnetti. One of these (vi, fig. 1), which was found at the Prato delle questiani, 9 kilometres from Velletri, some few years before 1644 (Teoli, Teatro Storico, p. 103), is now in the Palazzo Lancellotti, Matz-Duhn, No. 2534, and bears the inscription Clodia Lupercilla in pace bene dormit (see Schneider in Nuovo Bull. Crist. XIV, 1908, p. 243).

¹ Volpi, *l.c.* IV, p. 59.

² Teoli, *l.c.* p. 109; Volpi, *l.c.* IV, p. 62.

⁸ Nat. Hist. XII, 1, 5.

Fragments of other sarcophagi were found with it, so that it probably formed part of a Christian cemetery attached to one of the smaller centres of population.¹

Volpi, op. cit. p. 78, pl. vii, figures two busts, one of Pertinax, the other of a philosopher, both in the Palazzo Borgia. The former was found about 1650 (Borgia, Storia di Velletri, p. 94; cf. Memorie Romane, III, p. 83, pl. i) and is now in the Vatican (Sala dei Busti, 289). Visconti wrongly states that it was found in the Giardino dei Mendicanti, and his statement has been accepted by Bernoulli (Röm. Ikon. II, 3, p. 4, note 1) and Amelung (Sculpt. des Vat. Museums, II, p. 485).

The terra-cotta foot in a shoe (which is interesting as showing the type of leather shoe generally found in Romano-British excavations) illustrated by Guattani (*Mon. Ant. Ined.* 1785, p. 30 and pl. ii) is said to have actually been found in Velletri; it looks like an *ex voto* from some temple or shrine. It was in the Borgia Museum and has no doubt passed to Naples with it.

Among other objects found in the territory of Velletri we may notice a relief in bronze representing the construction of the Argo, with Pallas and Hermes standing by Argos (cf. Fea, Storia dell'Arte, II, p. 51; Cardinali in Memorie Romane, I, i, p. 130), which passed as soon as it was discovered to the Museo Borgia and thence to Naples. We may also note the piombi Veliterni. Cf. Visconti, Opere Varie, II, p. 33. The majority of the objects in the Museo Borgia, however, came from Rome (C.I.L. X, p. 652).

A hoard of consular coins was found not long before 1825, probably not far from Troncavia, where the Pallas of Velletri was discovered; and at the beginning of this year two fine heads, some necklaces, a torso, and a bronze statue were also discovered. (Cf. Cardinali in *Memorie Romane*, II, p. 313.)

For an interesting Christian sarcophagus of the fourth century A.D. in the courtyard of the Scuole Normali, see *Bull. Crist.* 1894, p. 176.

Another object said to have been found near Velletri is a small circular bronze plaque, belonging to the collar of a slave, now preserved in a private collection in Paris. It bears the inscription, Asellus servus Praeiecti officialis praefecti annonis foras muru(m) exivi tene me quia fugi reduc me ad Flora(m) ad to(n)sores. (Hülsen in

¹I hope to deal more in detail with the collection of sculptures once preserved in the Palazzo Ginnetti (where a few objects only still remain) on another occasion. In most cases it is by no means certain that they were actually found in or near Velletri.

Röm. Mitt. VI, 1891, p. 341; De Rossi in B. Com. Rom. XXI, 1893, p. 186.)

Over the door of the Chiesa del Preziosissimo Sangue is a marble sundial, of the usual concave shape, resting on two clawed (griffin's) feet, with an inscription stating that it was *erutum in agro Veliterno*.

In the municipal palace is a relief representing a female figure reclining, said to have been found on the Via Appia, forming, possibly, part of the tympanum of a temple. The back and the top are left rough.

In a vineyard below the station a headless and armless marble statue of a male person clad in the toga was found in 1882. On the base is the inscription

D(is) M(anibus) T. Fl(avio) Caralitano P P Fl(avia) Evagria marito pientissimo

(Not. Scav. 1882, 434; Eph. Ep. VIII, p. 158, No. 644). It is now in the Palazzo Ginnetti.

At a site called Campo Palazzo, some 300 paces from the Porta Napolitana, in some ancient vaulted structures, a tile bearing the stamp C. I. L. XV, 1091 was found before 1751 (Piacentini, Comm. graecae pronunc. p. 38).

ARCHAEOLOGICAL NEWS¹

NOTES ON RECENT EXCAVATIONS AND DISCOVERIES; OTHER NEWS

WILLIAM N. BATES, Editor

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GENERAL AND MISCELLANEOUS

THE INTERNATIONAL CONGRESS OF PREHISTORIC ARCHAEOLOGY. — In B. Mus. Brux. XII, 1913, pp. 20–22, 27–29, A. de Loë gives an account of the international congress for anthropology and prehistoric archaeology held at Genoa in September, 1912.

THE INTERNATIONAL CONGRESS OF AMERICANISTS.—In Z. Ethn. XLIV, 1912, pp. 525-548 (19 figs.), EDWARD SELER gives an account of the eighteenth international congress of Americanists held in London, May 27 to June 1, 1912.

GRAECO-BUDDHIST DISCOVERIES.— The cleansing of the column of Besnagar (state of Gwalior, Central India) has disclosed an inscription recording that the column was erected by Heliodorus, Greek envoy of King Antialcidas to King Bhagabhadra, in the fourteenth year of his reign. Antialcidas belonged to a Graeco-Bactrian dynasty and ruled in the valley of Cabul and the Punjab about 150 B.C. The column is the earliest known example of the influence of Hellenistic architecture in Central India. It seems to have borne the image of the solar bird Garuda. Details of the discovery (in 1907–1908) of the chest containing the bones of Buddha have been published (cf. A.J.A. XIV, 1910, pp. 81 f.). The chest is in the museum at Peshawar. The style of its decoration shows a mixture of Hellenistic and Hindu elements. One inscription is said to give the name of a Greek artist. (S. R., R. Arch. XX, 1912, p. 431.)

BULGARIA. — A Greek Inscription. — In Jh. Oest. Arch. I. XV, 1912, Beiblatt, cols. 95–100 (2 figs.), G. KAZAROW publishes a Greek inscription

¹The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor Bates, Editor-in-charge, assisted by Professor C. N. Brown, Miss Mary H. Buckingham, Mr. L. D. Caskey, Professor Harold R. Hastings, Professor Elmer T. Merrill, Professor Frank G. Moore, Professor Charles R. Morey, Dr. James M. Paton, Professor Lewis B. Paton, Professor A. S. Pease, Professor S. B. Platner, Professor John C. Rolfe, Dr. N. P. Vlachos, Professor A. L. Wheeler, and the Editors, especially Professor Marquand.

No attempt is made to include in this number of the JOURNAL material published after June 30, 1913.

For an explanation of the abbreviations, see pp. 146-147.

said to have been found at Burgas and now in the museum at Sofia. It is part of a decree, dating from the first half of the third century B.C., in honor of Raiscouporis, the son of King Cotys. The latter is mentioned in a proxe-

nos decree at Delphi.

CONSTANTINOPLE.—Acquisitions of the Ottoman Museum.—A list of the sculptures in marble and other kinds of stone with a few other objects, which were acquired by the Ottoman Museum in 1911, is given by T. Macridy Bey in Arch. Anz. 1912, cols. 583–588. Of the twenty-five numbers belonging to the Greek, Roman, and Byzantine epochs, eleven were found in or near Constantinople; others are from various places in Syria and Asia Minor; and one, a Greek stele, from Epirus. Some altar reliefs found at Lake Manias in Mysia are distinctly Persian in character. A statue of Egyptian style, some polychrome pottery, and other small objects were received from the English Palestine Exploration Fund, and an Attic cantharus and some Jewish ostraca, from the American excavations at Samaria.

JÛDÎ DÂGH. — Some Rock-Inscriptions of Sennacherib. — In S. Bibl. Arch. XXXV, 1913, pp. 66-94 (20 pls.), L. W. King reports a series of unpublished rock-inscriptions in Turkish Kurdistan, which are carved on the face of the mountain known as the Jûdî Dâgh, or Jebel Jûdî, on the east of the Tigris and to the northeast of Jezîreh. There are in all six sculptured panels on the Jûdî Dâgh above Shakh; five of these contain figures and inscriptions of Sennacherib, while the sixth has been prepared and levelled ready for the sculptor and engraver, but has been left unfinished. The texts do not add much of historical interest to our knowledge; but they are of considerable geographical value, for they enable us to identify Mount Nipur of the inscriptions, which was generally supposed to be in Cappadocia, with the Jûdî Dâgh. Incidentally they settle the positions of the seven towns captured and sacked by Sennacherib in this campaign as lying somewhere in the fertile Shakh Valley or its neighborhood. The texts also prove that "the land of Kummukh" extended far more to the east than was thought to be the case. The emblems of the gods which are engraved upon four of the panels enable us to identify the divine emblem of one of the greater gods which had previously not been identified.

NECROLOGY.—Lord Avebury.—On May 28, 1913, Lord Avebury died at Kingsgate Castle, near Margate. He was born April 30, 1834, was a banker by profession, and devoted much of his leisure to literature and science. In 1870 he became a member of Parliament and in 1890 was raised to the peerage. Among his books are: Prehistoric Times (1865); The Origin of Civilization and the Primitive Condition of Man (1870); and an edition of Nilsson's Primitive Inhabitants of Scandinavia. (Athen. May

31, 1913, p. 595.)

Jules Comte. — Jules Comte, member of the Académie des Beaux Arts, born in 1846, died at Paris, December 15, 1912. He was director of civic buildings (1885–1897), organized the Bibliothèque de l'enseignement des Beaux-Arts and the Revue de l'art ancien et modern. (S. R., R. Arch. XXI, 1913, pp. 93 f.)

Julius Euting.—Julius Euting, born at Stuttgart in 1839, died at Strassburg, where he was professor of Semitic languages at the university, in January, 1913. He had travelled in Egypt, Syria, and Arabia and had

published collections of Punic, Syrian, Nabatean, and Arabic inscriptions. (S. R., R. Arch. XXI, 1913, p. 93.)

François Armand Forel. — Professor François Armand Forel, of the University of Lausanne, died August 8, 1912. He was born at Morges in 1841. His works on physics, geology, natural history, and archaeology are numerous. His interest in archaeology centred in the lake dwellings of Switzerland. His excavations at the station of Roseaux and his monographs Le cimetière du Boiron à Morges and Le Léman are especially important. (S. R., R. Arch. XXI, 1913, p. 95.)

Jakob Heierli.—The Swiss archaeologist Jakob Heierli, whose knowledge of the settlements of the "Lake dwellers" was unequalled, died July 18, 1912, at the age of 59 years. Since 1900 he had been docent in the University of Zürich. He conducted many excavations and wrote numerous monographs. His most widely known work is his *Urgeschichte der Schweiz*, Zürich, 1901. (S. R., R. Arch. XXI, 1913, p. 93; see Mannus, Zeitschrift für Vorgeschichte, 1912, pp. 747 ff.)

Georges Louis Houdard. — Georges Louis Houdard, musician and historian of music and author of a monumental *Histoire du château de Saint Germain*, died at Saint-Germain-en-Laye, February 27, 1913, at the age of 53 years. (S. R., R. Arch. XXI, 1913, pp. 245 f.)

Carl Justi.—Carl Justi, professor of the history of art at Bonn since 1872, has died in his eighty-first year. He was a very able scholar of a philosophical temperament. Among his brilliant and solid treatises are works on Winckelmann, Velasquez, Murillo, Michelangelo, and miscellaneous essays on Spanish art. Justi was the first to study critically the Spanish school of the seventeenth century. (S. R., R. Arch. XXI, 1913, p. 92.)

Otto Lüders. — The first head of the German Institute at Athens, Otto Lüders, died at Athens, November 12, 1912. He was born August 13, 1844, at Anhalt, in Westphalia, and educated at Bonn. In 1874, on Winckelmann's birthday, he opened the Institute at Athens as its first Secretary. He retained this office only a short time, for he passed over into the consular service in the autumn of 1875. For years he was the tutor of H. R. H. Prince Constantine, and later German Consul General at Athens. (Georg Karo, Ath. Mitt. XXXVII, 1912, Nos. 3-4, pp. v, vi.)

Robert Mowat. — Commandant Robert Mowat, member of the Société des Antiquaires, died at Paris in his eightieth year, November 19, 1912. His military career was brilliant, but in 1870 he was wounded and taken prisoner. During his captivity he pursued linguistic and epigraphical studies. He wrote many articles for the Bulletin Épigraphique, the Revue Archéologique, the Bulletins de la Société de Linguistique, the Revue Numismatique, the Mémoires and Bulletins de la Société des Antiquaires. (S. R., R. Arch. XX, 1912, p. 424.)

David Heinrich Müller. — In December, 1912, David Heinrich Müller, professor of Oriental languages in the university of Vienna, one of the most learned orientalists of Austria, and author of numerous works on Oriental languages, literatures, and antiquities, died at Vienna at the age of 67 years. (S. R., R. Arch. XXI, 1913, p. 93.)

Eugène Révillout — Charles Eugène Révillout was born in 1843 and died at Paris, January 16, 1912. He was one of the most marked personages

of the old Louvre and the old school of Egyptology. He devoted his attention chiefly to papyri, especially demotic papyri, many of which he published and translated. (SEYMOUR DE RICCI, R. Arch. XXI, 1913, pp. 243 f.)

Spyridon Vases. — In 'Aρχ. 'Eφ. 1912, p. 126, is a memorial by G. P. OIKONOMOS to the late Spyridon Vases, in whose death the world has lost a peculiarly gifted scholar, investigator, and teacher.

Harry Langford Wilson. - Harry Langford Wilson, President of the Archaeological Institute of America, Professor of Roman Archaeology and



HARRY LANGFORD WILSON.

Epigraphy at Johns Hopkins University, died of pneumonia, February 23, 1913, at Pittsburgh, whither he had been called on business of the Institute. Professor Wilson was born at Wilton, Ontario, October 28, 1867, and was graduated (A.B.) from Queen's University in 1887. In 1888 he received the degree of A.M., and later the honorary degree of LL.D. from the same institution. In 1896 he received the degree of Ph.D. from Johns Hopkins University, where he subsequently rose through the various ranks of academic preferment. In 1906-1907 he was Annual Professor at the American School of Classical Studies in Rome. He served the Archaeological Institute as Member of the Council, Recorder, and Vice President, and was elected

President in December, 1912. He was a regular member of the Imperial German Archaeological Institute.

Professor Wilson was editor of The Satires of Juvenal (1903) and author of The Metaphor in the Epic Poems of P. Papinius Statius (1898) and various articles in periodicals. He was a man of great industry and conscientiousness; he was courteous, kindly, judicious, and just. He will be sadly missed, not only by his intimate friends, but by many others who had high hopes of his future usefulness to the cause of classical study.

A more complete notice has appeared in the Bulletin, IV, 1913, pp. 4-5.

THRACE. — Bronzes and Marbles. — In R. Arch. XXI, 1913, pp. 45-76 (25 figs.), Georges Seure contributes his sixth article on Thracian archaeology (see A.J.A. XVI, 1912, pp. 113 and 435; XVII, 1913, p. 97). He describes thirteen bronzes and twenty-three works of sculpture in marble or other stone, which have hitherto been unpublished or little known. The "Thracian Horseman" is the figure most frequently represented. An interesting small bronze (possibly modern) represents Telesphorus sitting on a log.

EGYPT

DISCOVERIES OF THE BOSTON EXPEDITION IN 1912. — In B. Mus. F. A. XI, 1913, pp. 19-22 (5 figs.), C. S. F. reports that in 1912 the expedition of Harvard University and the Boston Museum of Fine Arts opened a number of important tombs in the necropolis of Gizeh. Among these was the tomb of Seshem-Nofer, one of the original series of mastabas. the walls of which are preserved nearly to the roof and carved with fine reliefs. Most of the coloring retains its original freshness. Near this was excavated a fine small mastaba, that of Ka-Nofer, which was purchased for the Museum, as was a relief with a procession of dancing girls from a neighboring tomb. In the same vicinity a tomb was opened with very fine paintings representing hunting scenes. Excavations were also carried on at Mesheikh, where a predynastic cemetery was discovered. The bodies were buried in a contracted position in mats or leather garments, and necklaces of shell and stone, rude figures of animals, etc., found with them. Across the ravine was a group of tombs dating from the sixth to the tenth dynasty. Pottery, beads, and amulets, as well as seven alabaster vases were found here. Some work was also done at Naga-el-Dêr, where excavating had previously been carried on and a number of Middle and New Empire burials discovered with the objects belonging to them in situ.

GERMAN EXCAVATIONS IN 1911-1912. — In Klio, XII, 1912, pp. 494-499, L. Borchardt describes the excavations carried on by Germans in Egypt during the winter of 1911-1912. At Tell el-Amarna the excavation of private houses was continued, about two hundred in all being uncovered. Many small finds were made, including a head of Amenophis IV of three quarters size; also an alabaster statuette, and a much injured limestone statuette 30 cm. high of the same king; the head of a princess of red sandstone; and two horse's bits of a new type. At Anibeh, where Dr. Randall MacIver had already carried on excavations for the University of Pennsylvania, many graves of the Middle and New Kingdoms as well as Nubian graves were opened. At Gizeh the tomb of a daughter of Prince Merib was excavated, a fine example of a tomb of its period. A seated statue of an aged man, a son of King Snefru, was discovered.

ABYDOS. - Discoveries in 1912-13. - During the past winter eight more predynastic furnaces like the one found in 1912 (A.J.A. XVII, p. 99) were discovered at Abydos. The largest consisted of thirty-seven jars. In every case the jars were placed side by side in two rows supported by fire-bars of clay, and the whole was surrounded by other fire-bars. There had been a roof, and there were stoke-holes in the walls. The fire, made of twigs, was between the jars. Remains of wheat or rye found in the vessels prove that the furnaces were used for parching grain. On the same mound a cemetery of the fourth dynasty was found. Most of the tombs are intact. They consist of a small brick building two feet high and generally six feet square, with a small enclosure on the east side. The actual grave is below. Tombs of the twelfth dynasty were also discovered. In one was an amethyst necklace four feet long; and in another the figure of a dancing girl bending backwards until her hands touch the ground. In the eastern desert an ibis cemetery of Ptolemaic date was examined. (Circular of the Egypt Exploration Fund.)

BABYLONIA AND ASSYRIA

NIPPUR. - Important Discoveries among the Tablets in Philadelphia. — In 1910 one hundred and fifteen boxes containing about 10,000 tablets from the excavations of the University of Pennsylvania at Nippur were unpacked in the University Museum, and since that time museum assistants have been engaged in cleaning and patching together broken tablets. A. POEBEL, who copied about two hundred of them in 1912, announces the following discoveries (The Museum Journal, IV, 1913, pp. 41-50; 3 figs.): 1. The lower part of a tablet of six columns (three on each side) of which the first two relate to the creation of mankind by Enlil, Enki, and Ninharsagga, and the last four to the deluge. The account of the deluge differs from that on the tablet, also in the University Museum, published by Hilprecht a few years ago. The hero is Ziugiddu. The tablet is written in Sumerian and appears to date from the time of Hammurabi. 2. The much effaced reverse of a tablet containing lists of kings published by Hilprecht has the names of the mythical kings supposed to have ruled immediately after the deluge, including Gilgamesh, Dumuzi, and Etana. The last mentioned is said to have reigned 625 years; another king, "Scorpion," 840 years; and Lugalbanda of Erek 1200 years. One tablet written in the reign of the eleventh king of Isin or 134th king since the deluge reckons back 32,175 years to that event; and another in the reign of the last king of Isin, or 139th since the deluge, 32,234 years. 3. A very large tablet contains copies of all the inscriptions of Lugalzaggisi, Sharrukin, Rimush, and Manishtusu extant in the temple of Enlil at Nippur in the time of the scribe, according to a statement on the edge of the tablet. From this it appears that Sharrukin captured Lugalzaggisi and led him in triumph to Nippur; that his conquests extended from the Mediterranean to the Persian Gulf; and that Manishtusu crossed the Persian Gulf and defeated thirty-two kings who had united to oppose him. 4. The Museum has similar copies of the royal inscriptions of Naram-Sin, Ur-Engur, Ishbi-Urra, Idin-Dagan, Ishme-Dagan, Ur-Ninib, and Damik-ilishu; and copies of letters to and from King Idin-Dagan of Isin. 5. A short Sumerian history of the temple of Ninlil which throws light on the temple of Enlil at Nippur. 6. A large and much broken tablet containing a copy of part of the code of laws of Hammurabi. The best preserved portion supplements the great lacuna on the stele in the Louvre, supplying laws relating to the merchant. 7. A large number of grammatical texts in the Sumerian language, most of them written by pupils learning that language. They date partly from 2500 B.C., and partly from 1300 B.C. They give many new readings of cuneiform signs, and paradigms of the personal pronouns and of the verb, and furnish the basis for a Sumerian grammar. 8. Among the tablets bought from antiquity dealers is an important inscription of Lugal-annamundu, king of Adab.

SYRIA AND PALESTINE

DIBON. — The Site. — In Pal. Ex. Fund, XLV, 1913, pp. 57-79 (map), D. MACKENZIE reports the results of an exploration of the site of ancient

Dibon with a view to excavation. It seems clear that any scheme for excavation at Dibon would have to concentrate attention on the Area of the Moabite Stone, and this would mean in the first instance the temple of Chemosh and the Royal Palace. Massive Byzantine and Arabic buildings all over the two citadels present serious obstacles to any plan that might be proposed for systematic excavation of the whole site. Such an excavation would involve an enormous outlay of funds, probably without any corresponding result. It would thus seem as if the one feasible scheme for an excavation at Dibon would have to be of the nature of a roving commission to explore the Royal Quarter of the city with a view to discovering the temple of Chemosh and the palace, and in search always of possible inscriptions.

JERUSALEM. — Excavations at the Tower of Psephinus. — In R. Bibl. X, 1913, pp. 88–96 (8 figs.), E. Michon reports the results of recent French excavations on the site of the ruins known as Qaşr Jâlud, which is generally believed to mark the site of the Tower of Psephinus at the northwest corner of Jerusalem described by Josephus. The excavations have laid bare the foundations of the tower, and its connection with the ancient north wall of the city.

MORESHETH-GATH. — An Ancient Olive-Press. — In J. Bibl. Lit. XXXII, 1913, pp. 54–56 (2 figs.), G. B. Robinson reports the discovery of an ancient olive-press at Khurbet Mer'ash, which by some is identified with Moresheth-Gath, the birthplace of the prophet Micah (Mic. 1:14). Briefly described, it consists of two main parts: (1) a receiving vat 7 ft. 3½ in. long by 5 ft. 6 in. broad, and 5 ft. deep, cut in the rock and bearing marks of having been in use for generations; (2) a mosaic platform, 16 ft. 8 in. long by 16 ft. 7 in. broad, the floor being paved with smooth white tesserae, and for the most part still in a fair state of preservation. In the centre of this extensive mosaic pavement there is a large circular rock in which there is a rectangular cutting. This cavity was doubtless used as a press vat.

SHA'FÂT.—A Discovery of Jewish Tombs.—In R. Bibl. X, 1913, pp. 262-277 (2 pls.; 2 figs.), F. M. Abel reports the discovery at Sha'fât near Jerusalem of a series of Jewish tombs with loculi containing ossuaries bearing inscriptions in Hebrew, Palmyrene, and Greek.

TURMUS'AYA. — Discovery of Greek Sarcophagi. — In R. Bibl. X, 1913, pp. 106–118 (8 figs.), R. Savignac reports the discovery at Turmus'aya, a village about 37 km. north of Jerusalem, of an unusually large and fine sarcophagus in the Greek style, bearing on the cover the figure of a woman holding a child in her lap. E. Michon describes another sarcophagus from the same place which depicts on the sides Bacchus and the genii of the seasons.

ASIA MINOR

EPHESUS.—Recent Excavations.—At an open meeting of the Austrian Archaeological Institute at Athens February 13, 1913, W. WILBERG reported that the recent excavations at Ephesus had been confined to the harbor and the agora. At the harbor a gate with three openings was found, those on the sides arched, but not the centre one. It dates from the time of Augustus. Another gate to the harbor was round on one side and straight on the other and originally two stories high. It dates from the time of Hadrian. The agora was 130 m. square and surrounded by colonnades, two

stories high on the south side and one on the others. Gates led into it from the south and west. The one on the west, dating perhaps from the second century B.C., is elaborate. It had three doors with niches in the walls, while two low pylons supporting columns extended toward the west. Colonnades ran along the street leading to the gate, stopping about 6 m. from it to admit side streets. These streets were bridged by wide arches connecting colonnades and gates. The south gate also had three openings and square pillars in place of columns. There were statues above it. It dates from 4 B.C. A large hall near by was erected between 54 and 59 A.D. A large prostyle Corinthian temple of Claudius with beautiful architectural decoration is to be excavated in the fall.

ERYTHRAEA. — Recent Discoveries. — In Jh. Oest. Arch. I. XV, 1912, Beiblatt, cols. 49–76 (10 figs.), J. Keil describes his recent explorations on the Erythraean peninsula. Near the pool Poiras Gjöl are remains of an important town with fortification walls. It had flourished until Hellenistic times. In the plain of Usun Kuju, in the centre of the island, are remains of four important and two unimportant ancient settlements. Between Garaza Ssary and Bujeta, at Palaeochori, are some ancient house walls. On the island of Kamilonisi is a well-preserved fortification wall of early date. At Demirdžili are four groups of ancient ruins. Many unimportant remains prove that the Erythraean peninsula both in its northern and its southern parts was thickly populated in late Roman and Byzantine times by people cultivating the olive. The writer also publishes a few architectural fragments, and fifteen inscriptions from this region.

KOPATZEDES.—A New Inscription.—In Ath. Mitt. XXXVIII, 1913, pp. 37-42, E. Fabricius publishes a Greek inscription of 61 lines found at Kopatzedes in 1913 and now at Pergamon. It is a decree probably of

the people of Elaea recording their friendly relations with Rome.

NOTIUM. — Discoveries in 1907. — In Jh. Oest. Arch. I. XV, 1912, pp. 36–67 (41 figs.), T. Macridy describes his excavations at Notium in 1907. The work is not yet completed; but plans were made of the Byzantine church, and the site of the temple of Apollo Clarius was discovered. The latter building apparently faced the south. Two columns in antis were found, which probably belonged to the opisthodomus. The extreme width from anta to anta was 9.07 m. On the columns and walls were twenty-eight inscriptions recording the sending of delegations from various cities to the temple. At another place was found a broken marble relief representing Cybele with two animals, and a number of architectural fragments, but no trace of the building to which they belonged. Several other pieces of sculpture came to light, among them two interesting grave stelae, a number of good terra-cottas, and fourteen grave-inscriptions. Ibid. p. 67 (fig.), J. Keil adds an inscription found at Ephesus which seems to have come from the temple of Apollo Clarius at Notium, perhaps brought there as ballast.

PERGAMON. — The Excavations of 1910, 1911, and 1912. — In Ath. Mitt. XXXVII, 1912, pp. 233–276 (8 pls.; 3 figs.), W. Dörffeld reports the results of the excavations carried on at Pergamon in 1910 and 1911. The precinct of the temple of Demeter was completely cleared. On its south side was a stoa, 91.50 m. long, originally of trachyte, but in Roman times partly rebuilt with marble. Below the stoa was a long room or cellar without windows or partitions, the purpose of which is not yet clear. The north side of the

precinct also had a stoa of trachyte (85.20 m. long) now much injured. At the east end of it was a building with seats like a theatre. There was also a west stoa. Most of the building in the enclosure is due to Philetaerus and his brother Eumenes, but the temple itself is older. The precinct of Hera was also completely excavated. Except for the pronaos, which was of marble, the temple is well preserved, with its mosaic floor, and one of the cult statues. a standing Zeus, almost complete. It was of trachyte and once had four columns in front. At the east end of the enclosure was a stoa and at the west an exedra. The temple was erected by Attalus II, as an inscription on the architrave shows. Between the precincts of Demeter and Hera was a building perhaps to be identified as a private house. New studies of the theatre of Dionysus prove that it was first provided with a stone skene in the first century B.C., and with a stone stage in the third century A.D. A small temple was excavated in 1910 on the right bank of the Cetius, but it is not known to what god it was dedicated. Ibid. pp. 277-303 (3 figs.), A. IPPEL publishes thirty-three inscriptions found during the excavations; and pp. 304-330 (5 pls.; 9 figs.) the same writer discusses the sculptures and small finds. The most important are the headless Zeus found in the temple of Hera, two statuettes of dancers of a coarse-grained marble, two female heads, a bearded Hermes head, a headless Athena, and a female portrait head. Ibid. pp. 331-343 (6 figs.), P. SCHAZMANN and G. DARIER report upon the excavations at Kaleh Agili, the ancient Atarneus. Ibid. pp. 344-407 (pl.; 11 figs.), S. LOESCHCKE discusses the sigilla vases and fragments found at **Tschandarli**. In Arch. Anz. 1913, cols. 34-35, there is a summary of the report of A. Conze made at the February (1913) meeting of the Berlin Archaeological Society on the excavations at Pergamon in the fall of 1912. The early walls of the sanctuary of Demeter (before Philetaerus) were further examined, and much of the débris was removed from the east side of the gymnasiums, disclosing a gate of Greek date, with a winding stairway inside. The street which formed the approach to the gymnasiums during the period of the kings was found but not uncovered. In the excavation of that part of the main street which lies below the tract explored by the Berlin museum and above that of the Institute, a triple building containing a number of old rock cisterns was found, and their contents, mostly sherds of Hellenistic date, were examined.

TAHTALOU. — A Greek Inscription. — In R. Arch. XXI, 1913, pp. 41–43 (fig.), Schavarsch Vardapet Sahakian publishes an inscription now in the Greek church of St. Charalambos, at Tahtalou, a village six hours northeast of the ruins of Comana and three hours south of the ancient Cabira (Niksar). The text he reads $\theta\epsilon\hat{\omega}\iota$ | 2 Aπόλλωνι | $\epsilon\dot{v}$ σηρειτε | Στάτιος | νεών. Τh. Reinach (p. 44) finds a ligature in the third line, and reads Εὐσηγρειτε or Εὐσηπρειτε; he suggests Εὐσηγρείτει as the dative of a local epithet of Apollo.

GREECE

MISCELLANEOUS DISCOVERIES.—In 'A $\rho\chi$.' E ϕ . 1912, pp. 266–268, are the following brief reports of discoveries made during the year 1912: 1. Athens (P. Kastriotes). The Stoa of the Giants has been found to extend 3 m. farther east and the foundations of the east side have been uncovered for about 10 m. 2. Sunium (V. Staes). In the artificial embank-

THE WORK OF THE GERMAN ARCHAEOLOGICAL INSTI-TUTE IN 1912. — At an open meeting of the German Archaeological Institute in Athens February 12, 1913, a summary of the year's work was given. Professor Dörpfeld continued excavations at Corfu under the patronage of the German Emperor. Nothing of importance was turned up at the temple which Versakes discovered two years ago. Not even the name of the divinity worshipped there has been learned; but a paved street was found, and the altar to the east of the temple is well preserved. It is very important and is one hundred years older than the great altar at Delphi. The temple of Kardaki at "Mon Repos" was also investigated and can now be restored as an archaic Doric peripteral building. The absence of triglyphs and metopes is noteworthy. Work was to be resumed in the spring of 1913. At Pergamon Conze led a small campaign of excavation. The entrance to the gymnasium was uncovered; six steps lead up to it and there were two windows. The structure dates from Roman times. At Tiryns (see p. 441) and Cleonae work was also carried on. It is hoped that that at Tiryns may be finished this year and the final publication made soon. The Institute at Athens plans to turn its attention next to western Crete and also to Nemea. More careful study of the finds at Olympia will be made.

MINOAN TOMBS IN CRETE.—In Ath. Mitt. XXXVIII, 1913, pp. 43-50 (7 figs.), J. A. HATZIDAKIS describes a tomb 2.20 m. by 1.80 m. recently discovered at Stavromenos, containing an elliptical-shaped larnax and a pithos of Middle Minoan date. He also publishes the contents of a tomb found just west of Tylisus. This was nearly circular and contained

three larnaces, a number of vases and a green sardonyx seal representing two calves, dating from the Late Minoan I period.

ARGOS. — New Inscriptions from the Heraeum. — In Jh. Oest. Arch. I. XIV, 1911, Beiblatt, cols. 139–150 (3 figs.), O. Walter publishes four new inscriptions from the Heraeum. In the west room of the northeast stoa is a statue base with the following inscription of the fifth century B.C.:

τ]ᾶς hέρας ἐ[μὶ hιαρόν · ἐκ το hιδί[ο 'Α]ρχεκράτες : Σμο[ῖος : .]ρεφίον : Σύλιχ[ος.

A second inscription built into the west wall of the complex between the north and northeast stoas reads:

τοὶ ἰαρομνάμονες τόν [δε] το h[ιπ]οδρόμο ἀνέθεν : Κρίθυλο[ς : *A] κακτο[ς : Φιλέας : Γνάθις :

In the same wall is a small fragment of fourth century date; and in the northeast corner of the "West Building" is a long list of manumissions in poor condition dating from the second half of the second century B.C.

ELIS.—The Austrian Expedition.—In Jh. Oest. Arch. I. XIV, 1911, Beiblatt, cols. 97–116 (11 figs.), J. Keil and A. v. Premerstein report upon their explorations in Elis in 1910 (see A. J. A. XV, p. 415). At an open meeting of the Austrian Archaeological Institute at Athens, February 13, 1913, O. Walter reported upon the six weeks' campaign of the Institute at Elis. A palaestra of Hellenistic date and two colonnades were found; also a building 12 by 16 m. divided by a central wall with a door, which apparently dates from the early part of the fifth century B.c. These buildings seem to have been in or near the agora. Several marble fragments and a number of pieces of painted terra-cotta, including a few heads, also came to light.

GORTYNA. — Excavations in 1912. — At an open meeting of the Italian School at Athens April 14, 1913, L. Pernier described his excavations in 1912 at the western side of the "Odeum" at Gortyna, made possible by changing the course of the irrigation ditch. To the east was another building of late date. Five fragments of the laws, in addition to other inscriptions and a broken Mercury, were discovered. These excavations confirm Halbherr's conjecture that the circular building was in the agora.

LEMNOS.—A Submerged Town.—It is announced from Greece that Lieut. Bakopulos, while carrying out military observations, remarked on the sea bottom, to the east of the Island of Lemnos, some ancient ruins which were perfectly visible and prove the existence of a town of about three miles in circumference. The exact spot is that marked on the British Admiralty charts under the name of the Pharos Bank, the depth being from five to twenty-five metres. Orders have been issued by the Ministry to carry out scientific researches on the spot. (Nation, May 15, 1913, p. 508.)

LEUCAS. — Prehistoric Remains. — In Z. Ethn. XLIV, 1912, pp. 845-864 (14 figs.), G. Velde describes skeletons, vase fragments with finger-nail

scratchings, bone and flint implements, stone axes, hammers, millstones, etc., of the neolithic age found in a cave $(Xo\iota\rho o\sigma\pi\eta\lambda\eta\acute{a})$ in the southern part of Leucas. Introducing Velde's description of crania and skeletons, Dörpfeld gives a brief résumé of his finds near Nidri and insists that the remains are those of the Homeric Achaeans.

LYCOSURA. — The Megaron of Despoina. — In 'A $\rho\chi$.' E ϕ . 1912, pp. 142–161 (41 figs.), K. KOUROUNIOTES publishes the results of his excavation of the Megaron, or Hearth, of Despoina at Lycosura (Paus. VIII, 37, 8), which can be restored with practical certainty from the existing fragments (Fig. 1). The altar was built on the steep hillside above the temple. The stoa of engaged columns behind the altar masked the terrace wall, which served also as a wind-break. The monument dates from about 200 B.C.

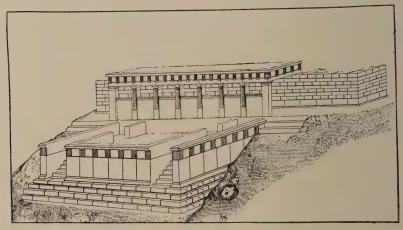


FIGURE 1. — THE MEGARON OF LYCOSURA.

Many terra-cotta images were found on the site, of which the most common type represents a ram clothed in a woman's himation, standing erect, and bearing a basket upon his head. Doubtless worshippers of Despoina in this guise marched in procession, bearing offerings to the goddess.

MYCALESSUS. — Supplementary Notes. — In 'A ρ_X ' E ϕ . 1912, pp. 102–119, 253 (2 pls.; 21 figs.), P. N. URE supplements articles, already published in B.S.A. XIV and J.H.S. XXIX, XXX, and XXXI, on excavations made by himself and Mr. Burrows in 1907 and 1908 at Reitsona, the ancient Mycalessus. Two interesting black-figured vases are described; the Boeotian cylices are classified and their style traced to Corinthian influence; a catalogue is given of the articles, mostly vases, found in three of the graves of the necropolis.

MYCENAE.—A "Geometric" Cemetery.— Near the "Tomb of Clytaemnestra" at Mycenae was found in 1909 a cemetery of the geometric period in which three distinct types of burial are seen: the ashes of the dead deposited in an urn which was placed in the grave; the whole body, usually that of a child, placed in a large urn; and interment in a tomb con-

structed of masonry. Jars for libations were also found and numerous geometric vases, all of which are described and discussed by D. Evangelides,

'Aρχ. 'Eφ. 1912, pp. 127–141 (15 figs.).

TIRYNS. — Recent Excavations. — In Ath. Mitt. XXXVIII, 1913, pp. 78-91 (plan; fig.), K. MÜLLER reports upon the latest excavations at Tirvns. The citadel wall south of the main gate shows signs of rebuilding. The Byzantine church west of the propylaea was not built on the site of an ancient sanctuary, as had been conjectured. The altar in the great inner court was originally circular and not a trench for sacrifices. In the megaron the base called by Schliemann a "basin" was in reality the support for the throne. Walls of the earlier palace were found, but its plan cannot be made out. It was built in Late Minoan I or II; and the later palace in Late Minoan III. A group of large, coarse stirrup-cups with painted inscriptions upon them came to light; one fragment has an inscription in several lines. Some of these are older and some later than the later palace. The script differs from the contemporary Cretan script, but is of Cretan derivation. A terra-cotta figurine of Athena, a small bronze votive helmet, and a vase fragment with a painted dedication to Athena testify to the worship of the goddess. The small west gate in the lower city was cleared.

TYLISUS. — Minoan Buildings. — In 'A $\rho\chi$. 'E ϕ . 1912, pp. 197–233 (8 pls.; 41 figs.), Joseph Hatzidakis describes in detail Late Minoan and Middle Minoan finds in buildings excavated by him near Tylisus, Crete, 12 km. west of Cnossus. These included: many large pithoi, and vases of various shapes and sizes; three inscribed clay tablets like those found at Cnossus; several engraved gems and sealings; various utensils of steatite; a fine rhyton of obsidian; various articles of bronze including four great hemispherical kettles, the largest having a diameter of 1.40 m. and weighing 52.5 kg., made of seven pieces of bronze riveted together; a bronze ingot in the form of the so-called talanton; a fine bronze statuette of a man; ornaments of ivory; fragments of wall-paintings; bones of various animals, which are carefully catalogued and classified by periods. The description of the buildings will be published later.

ITALY

ACQUATACCIO.—An Inscription.—At Acquataccio, between the railroad from Rome to Civitavecchia and the river Almo, an inscription was found with the place name ad Nymphas. This is found also in C.I.L. VI, 9526, where it is located in Sebura maiore. (E. Ghislanzoni, Not. Scav. IX, 1912, p. 381.)

CAMARINA.—Recent Discoveries.—The exploration of a large number of tombs at Camarina resulted in the discovery of a number of vases and small objects, including a pair of hydrias (19.25 cm. high) in the style of Meidias with toilet scenes. (P. Orsi, Not. Scav. IX, 1912, pp. 370–371.)

CAPENA. — Etruscan Tombs. — Etruscan tombs of various types have recently been excavated near the site of the ancient Capena, along with some of the Roman period. A report on these tombs and their contents is made by E. Stefani, B. Pal. It. XXXVIII, 1913, pp. 147–158.

CAPORCIANO.—A Collegium Corbulonis et Longinae.—An inscription discovered at Caporciano makes known the existence of a collegium

Corbulonis et Longinae, and establishes the connection of the Domitian family with that region; cf. C.I.L. IX, 3418-3419, 3432, 3469. (N. Persichetti, Not. Scav. IX, 1912, pp. 262-263.)

CARLENTINI. — A Hoard of Greek and Punic Coins. — A hoard of Greek and Punic coins, including seventeen Carthaginian coins of electrum and some fine gold coins of Hiero II of Syracuse, has been found at Carlentini, Sicily. (P. Orsi, *Not. Scav.* IX, 1912, p. 372.)

COMISO.—A Campanian Crater.—In the Graeco-Roman necropolis at Comiso, Sicily, a Campanian crater was found (44.50 cm. high), representing a warrior and a maiden sacrificing at an altar, while beside them are a youth and maiden crowned with laurel, who are clasping hands. (P. Orsi, Not. Scav. IX, 1912, p. 369.)

CUMAE. - Excavations on the Acropolis. - In Rend. Acc. Lincei, XXI, 1912, pp. 202-205, F. von Duhn describes some recent excavations on the acropolis of Cumae. On a terrace below the summit, above prehellenic remains, were found remains of a temple of considerable size, oriented from south to north with terrace walls at a little distance, serving as a defence against Samnites and Etruscans. A road winds up toward the centre of the east side with a sort of pronaos as an approach to the temple, reminding one of the temple of Apollo at Phigaleia. Formerly this was thought to be a temple of Apollo, but it would have been invisible to one approaching from the north on the Via Domitiana (Statius, Silv. IV, 3, 114-116), and is probably a temple of Jupiter, the summit being already occupied by a temple of Apollo, the archegetes of the Chalcidian immigrants (immania templa, Virgil, Aen. VI, 19). An Oscan inscription recently found, dedicated, as Buecheler explains it, Jovi Fulguratori, and a dedicatory inscription Jovi Auguri and fragments of a colossal statue support this contention. An inscription and some fragments that seemed to indicate a temple of Apollo on the lower terrace probably came from the summit. The Jupiter was probably identical with the Olympian Jupiter of Livy, XXVII, 23.

ESTE. — Objects found in an Archaic Tomb. — The bronze objects and earthenware found in 1895 in an archaic tomb at Este are described and illustrated by A. Alfonsi, B. Pal. It. XXXVIII, 1913, pp. 92–109 (2 pls.; fig.). They include a razor of the crescent form, a saw, file, axe, sword, knives, hairpins, cinerary urn, and other vessels.

FRASCATI.—A Roman Villa.—In enlarging the convent of the Cappuchini, further remains of a Roman villa were disclosed, a part of which was unearthed in 1656 (see B. Com. Rom. 1884, p. 202). (E. GHISLANZONI, Not. Scav. IX, 1912, p. 214.)

IESI.—A Hoard of Roman Coins.—According to a report in the *Boll. Num.* XI, 1913, p. 15, a hoard of 5300 silver coins of republican date has been found on land belonging to Marquis Trionfi-Honorati near Iesi. They are to be placed in charge of Professor Dall' Osso for examination.

LOCRI EPIZEPHYRII.—The Recent Excavations.—The continuation of the report of the excavations records the discovery of a number of inscriptions; a fine standing mirror, 34 cm. high, with a handle representing the figure of a woman draped in a peplos, of pre-Phidian style; a pinax, 16 cm. by 16.50 cm., representing Actaeon attacked by the hounds of Diana. Actaeon has been thrown upon his back. Diana, who stands beside him,

carries a small stag on her right arm. There was also found a small biga, of bronze except for the pole and the axles of the wheels, which were of iron. It is 17 cm. high and 98 mm. long, and of fine workmanship. The further exploration of the temple of Casa Marafioti revealed huge substructures, and that of the sanctuary of Persephone a fragment of a vase representing Hercules wrestling with the Old Man of the Sea and bearing a new καλός inscription. (P. Orsi, Not. Scav. IX, 1912, Suppl. pp. 1–21.)

MONTE ARGENTARIO. — Aeneolithic Tombs. — The contents of aeneolithic tombs found on the slopes of Monte Argentario have been placed in the Archaeological Museum at Florence. (A. Minto, B. Pal. II.

XXXVIII, 1913, pp. 132–135; 2 figs.)

MONTE CAVO. — Recent Excavations.—The excavations undertaken at Monte Cavo for the purpose of discovering the site of the temple of Jupiter Latiaris had a negative result. The remains of some large buildings were found and a number of interesting architectural fragments, as well as the last part of the via triumphalis. (G. GIOVANNONI, Not. Scav. IX, 1912, 382–384.)

MURO LECCESE. — Prehistoric Remains. — Prehistoric remains antedating a Messapian city (itself of unknown name), at Muro Leccese, are described in *B. Pal. It.* XXXVIII, 1913, pp. 159-167 (3 figs.), by P. MAGGIULLI. They consist chiefly of crude cinerary urns.

OPPEANO VERONESE. — Objects from a Prehistoric Necropolis. — A brief account of objects found in a prehistoric necropolis at Oppeano Veronese is given by G. Pellegrini, B. Pal. It. XXXVIII, 1913, pp. 110–114 (2 figs.). Of most importance is a bronze situla ornamented with horizontal ridges.

OSTIA. — Recent Discoveries. — In Not. Scav. IX, 1912, pp. 161-173, D. VAGLIERI gives a plan of the Barracks of the Vigiles and its front elevation, as well as views of various parts of the excavated portions of the city. In the portico behind the theatre the mosaics of three more corporations have been found, the navicularii Misuenses (this confirms the spelling of the name of the city on the eastern arm of the Gulf of Carthage as given by Pliny, N.H. V, 4, 29, and by the Tabula Peutingeriana and Tabula Ravennensis), the navicularii of Hippo Diarrhytus (Biserta), and those of Misluvium in Mauretania. (Cf. B. Com. Rom. XL, 1912, pp. 274-275.) On the Via dei Vigili a large room was excavated with a mosaic pavement representing four dolphins flanked by symbolic designations of the provinces with which Ostia had the most intercourse: Sicily, indicated by the triquetra; Africa, a head covered with an elephant's hide; Spain, a head crowned with olive; and Egypt, a female head above a crocodile. Opposite each of these is a winged head, in some cases bearded, in others beardless, probably representing the winds which favored navigation to the respective provinces. About the central portion of the pavement were squares containing shields and lances and conventional designs, surrounded with a border with a meander pattern. Other objects of interest were a lead matrix for eight tesserae and an inscription of the stuppatores res(tione)s, which shows that they were dealers in stuppa, contrary to the view of Lanciani. (D. VAGLIERI, Not. Scav. IX, 1912, pp. 202-213.)

POMPEII. — Discoveries in the Via dell' Abbondanza. — The continuation of the excavations in the Via dell' Abbondanza brought to light a

number of paintings: one of Venus Pompeiana, drawn by elephants in a quadriga, the front of which has the form of the prow of a ship; a representation of the workshop of a vestiarius named Verecundus, designated by an inscription; Mercury, with caduceus and purse in hand, coming out of a temple; several portrait heads. A large number of inscriptions were found, for the most part election notices, including one in which the vowels are designated cryptographically by number: -B-SC-NT==-S, Abascantius. (M. Della Corte, Not. Scav. IX, 1912, pp. 174–192, 216–224, 246–259, 281–289.)

RHEGIUM. — Restoration of the Baths. — In Rend. Acc. Lincei, XXI, 1913, pp. 791-802 (fig.), N. Putortì discusses an inscription found in Rhegium (April, 1912), telling of the restoration of Thermae there by Valentinianus, Valens, and Gratianus. An earthquake, which Putorti dates July 21, 365 A.D., had destroyed them. The inscription adds a new name, that of Pontius Atticus, to our lists of correctores Lucaniae et Bruttiorum.

ROME.—Discoveries at the Baths of Caracalla.—The excavations undertaken to restore the plan of the peribolus of the Baths of Caracalla resulted in a number of interesting discoveries. Between this and the baths proper was a xystus. Among the finds were a statue in Luna marble, a copy of a bronze of the school of Polyclitus, the upper part of a head from a copy of the Hermes Propylaeus of Alcamenes, a library with niches for armaria and imagines, and beneath the southern part of the peribolus a Mithraeum with two important inscriptions, one of which applies to Mithra the term unus, while the other has a greater number of appellatives than is attached to the name of the god in any other inscription. (E. Ghislanzoni, Not. Scav. IX, 1912, pp. 305–325.)

Discoveries in the Horti Sallustiani. — A Roman house found on the Pincio in excavating for the new German Evangelical church, is described in Röm. Mitt. XXVIII, 1912, pp. 92–112 (11 figs.), by E. KATTERFELD. The date is the time of Trajan, as is shown by brick-stamps and coins. Of more interest than the mosaics, earthenware, and fragments of fresco, is the large square base upon which the obelisk of Trinità dei Monti appears to have stood, in the imperial gardens (Horti Sallustiani), as they were enlarged in the third century. Of this enlargement toward the west, as far as the Via Toscana, the excavations furnish proof.

Another Cippus of the Pomerium. — In building the new Palazzo delle Ferrovie, at the corner of the Viale del Policlinico, a cippus of travertine with the inscription POMERIUM was found, but not in situ. It corresponds with those of Claudius of the year 49, but the inscription on the front is missing. (A. Pasqui, Not. Scav. IX, 1912, pp. 195–202; B. Com. Rom. XL, 1912, pp. 259–260.)

An Ancient Road.—In digging the foundations of the Palazzo della Società Immobiliare in the Via di S. Marcello, 34 m. from the corner of the Via dell' Umilità, an ancient road, 3.60 m. wide, running from northeast to southwest, was found at a depth of 5.65 m. (E. Ghislanzoni, Not. Scav. IX, 1912, pp. 225 f.)

A Column of the Forum of Nerva. — One of the columns of the Forum of Nerva, at the corner of the Via Alessandrina and the Via della Croce Bianca, was uncovered and measured. Its height without the capital is 8.80 m., with twenty-six channels. The diameter at the base is 1.08 m.

The plinth is 1.60 m. wide and the base 0.57 m. high. (E. GHISLANZONI, Not. Scav. IX, 1912, p. 226.)

Aqueducts near the Porta Maggiore. — In opening three new archways through the Wall of Aurelian, to the left of the Porta Maggiore, and the consequent levelling operations, the remains of several aqueducts have been brought to light. Two of these had underground channels. Of three others, there are parallel lines of piers, one of them accompanied by cippi of Augustus. One of these last has the number XXIV, the other, XXIIII, — a new bit of evidence on Roman numerals in the early empire. (E. GATTI, B. Com. Rom. XL, 1912, pp. 228–236; 3 figs.)

A Station of the Vigiles. — Excavations alongside of the church of San Marcello (4th Region, Via Lata) have uncovered a stretch of street-paving of late date, and beneath, five rooms of a brick building, — apparently a part of the station of the first cohort of the vigiles. (G. Gatti, B. Com. Rom. XL, 1912, pp. 253–254; G. Mancini, Not. Scav. IX, 1912, pp. 337–343.) To the south of this station and 30 metres from the church more walls of later date have been found, and in the midst of them an octagonal basin for the immersion of catechumens. It appears to have been in a private house. (G. Gatti, B. Com. Rom. XL, 1912, pp. 254–256.)

A Bronze Statue. — The partial restoration of a bronze statue from fragments discovered many years ago near the Ponte Sisto, is published in Röm. Mitt. XXVIII, 1912, pp. 113–121 (4 figs.), by R. Paribeni, who considers also some other bronze fragments from the same source.

Recent Acquisitions of the National Museum. — In Boll. Arte, VII, 1913, pp. 157-172 (pl.; 16 figs.), R. Paribeni records the various antiquities recently acquired by the National Museum. These are: (1) Fifteen ivory keys which once belonged to a musical instrument. (2) A bronze statuette, found at Sutri in 1912, representing a nude youth standing (see p. 447). (3) A fragment of a large marble vase of neo-Attic style. The greater part of a figure of Athena, who carries a lance over her shoulder, a small flying Victory, and the lyre of Apollo are still preserved. (4) A statue of an Oriental divinity, 1.57 m. high. It represents a woman with Egyptian headdress, fully draped, standing stiffly while a serpent coils about her. The writer believes it to be intended for Atargatis. (5) Portrait heads of Nero and of Lucius Verus. (6) An unidentified female head. (7) A male head from a high relief. (8) An unidentified portrait of a man. (9) A comic mask of marble. (10) The large mosaic found in the Via Emanuele Filiberto in 1910, with the head of Medusa in the centre surrounded with geometric patterns. (11) A large marble two-handled cup with reliefs, 0.78 m. in diameter and 0.32 m. high. It had no bottom. On one side Pan, who holds a goat by the horn, is threatening a wolf with a club; on the other a wolf is devouring an animal. On the rim is the inscription, Q. Caecilius Amandus scrib(a) libr(arius) q(uaestorius) III dec(uriarum) et Q. Tullius Q. f(ilius) Fal(ernus) Caecilius Amandus D. D. On one handle is [Silva] no and on the other sacrum. (12) From Palestrina a fine puteal of terra-cotta (Fig. 2), 0.71 m. high and 0.32 m. in diameter. On the outside are five winged female figures grasping in each hand a thyrsus. (13) Statuettes of Heracles, of Aphrodite holding a sandal in her raised right hand, of a dwarf, and of a comic actor. (14) A small bronze vase in the form of a wineskin. (15) A gold ring from Velletri with the head

of Heracles. (16) Two gems, one with a youthful head and the inscription DECENTIS; the other representing the little Dionysus riding a goat. (17) A two-handled cup of terra sigillata on which is Victory in a chariot drawn by four horses. The word Danubius, which appears above, is taken by the writer to be the name of one of the horses. (18) A number of coins were also acquired.



FIGURE 2. — PUTEAL FROM PALESTRINA.

New Inscriptions.—In the Via Pinciana, near the villa of Marchese Annibale Berlingieri, a number of inscriptions were found at a depth of 2 m. One of these contains an elogium in two columns of twenty-five hexameter lines each, which are not always correct, but are full of sentiment. It is addressed by A. Allius to his freedwoman and consort, Allia Potestas, and belongs apparently to the end of the third or the beginning of the fourth century. The apex and tall | indicating quantity, are used, correctly but not in the case of all long vowels. (G. MANCINI, Not. Scav. IX, 1912, pp. 155 ff.)

Inscriptions from the Via Nomentana.—Between 12 and 13 kilometres from the city a marble cippus was found with an inscription to

Nymphodotus tabularius by his wife and four sons, all of whom had the same praenomen, Tiberius. (E. Ghislanzoni, Not. Scav. IX, 1912, p. 379.)

Excavations at the Bridge of Nona. — The excavations at the bridge of Nona, named from its position nine miles from the city (see Not. Scav. IX, 1912, p. 197), resulted in the discovery of a small bath and a large number of votive offerings, but gave no clue to the location of the temple or the name of the divinity to whom it belonged. (G. MANCINI, Not. Scav. IX, 1912, pp. 265–272.)

Miscellaneous Discoveries in the Campagna.—In improving the grade of the Via Ostiense, near the ancient Ponte della Refolta (14 km. from Rome), the course of the republican road has been uncovered. It was unpaved, but confined by curbstones 4.80 m. apart. The later polygonal paving blocks are at a higher level (1 m.). Two ancient wells by the road-side were also discovered at a distance of 240 Roman feet from each other. Not far from the road was found a plain white marble sarcophagus, covered with a slab of African marble, and still containing the skeleton, but nothing else. (G. Gatti, B. Com. Rom. XL, 1912, pp. 260–261.) Recently discovered columbaria of a modest kind on the Via Labicana, 3 km. from the city, have yielded numerous unimportant inscriptions. (G. Gatti,

ibid. pp. 262-265.) On a cross-road north of Rome, anciently connecting the Via Cassia with the Via Triumphalis, a tomb belonging to the Cassian and Memmian families has been uncovered, containing a large number of inscriptions (second century). Of special interest is one laconic reference to an unsuccessful surgical operation, - ANIMA INNO-CENTISSIMA OVEM MEDICI SECARVNT ET OCCIDERVNT. Another describes with rare pathos the death of a beloved wife. (G. GATTI, ibid. pp. 265-268.) Near the first milestone of the Via Salaria a stretch (90 m.) of the ancient road, parallel to the modern, has been unearthed, together with some tombs belonging to freedmen of the family of the Ostorii Scapulae, and indicating, apparently, the site of an estate of this wealthy family, prominent in the first century A.D. (G. GATTI, ibid. 1912, pp. 270-272.)

SAVOGNA.—Neolithic Remains.—The results of excavations in the cave of Savogna (Udine) are presented by A. Alfonsi, B. Pal. It. XXXVIII, 1913, pp. 61-66. The remains are of the neolithic period, and include objects in stone, terra-cotta, and bone.

SUTRI.—A Bronze Ephebus.—A fine bronze statuette of an ephebus (Fig. 3), which has been taken to the National Museum at Rome, was found at Sutri. It is a standing figure, 78 cm. high, of a youth of



FIGURE 3.—BRONZE STATUETTE FROM SUTRI.

somewhat effeminate form. The right arm is raised to the head, and the left is bent as if carrying towards the face some object which is now lost,

but was in all probability a mirror. It is a Graeco-Roman copy of a fourth-century type. (H. Paribeni, *Not. Scav.* IX, 1912, pp. 373–377.)

SYRACUSE.—The Statue of an Ephebus.—The statue of an ephebus in Greek marble, of Lysippian proportions and style, which had been provided in the Roman period with a new base of Luna marble has been found at Ortygia. (P. Orsi, Not. Scav. IX, 1912, pp. 290 ff.)

VALLE DI CAVEDINE.—Prehistoric Dwellings.—Prehistoric dwellings recently found in the Valle di Cavedine (Trentino) are described briefly by G. ROBERTI in B. Pal. It. XXXVIII, 1913, pp. 121–124.

VERONA.—Remains of a Roman Bath.—In Madonna Verona, VII, 1913, pp. 1-5, A. DA LISCA records the discovery of Roman walls probably belonging to a bath at Verona. He adds the documentary evidence for baths at Verona in mediaeval times.

VOLTERRANO. — Prehistoric Discoveries. — Prehistoric discoveries near Pomarance (Volterrano) are reviewed in *B. Pal. It.* XXXVIII, 1913, pp. 125–131 (4 figs.), by E. Galli. The objects consist of flint spear-points and arrow-heads, bronze implements, pottery, and, from the Early Iron Age, fibulae, spirals for the arm or the hair, various implements, etc.

SPAIN

CADIZ.—Phoenician Relics.—In the *Journal des Débats*, October 6, 1912, is an account of Phoenician relics at Cadiz, especially of discoveries made in September, when excavations were begun, after an interim of several years, in the necropolis. Ten *loculi*, a skeleton, and various objects of silver, bronze, and gold were found. (J. C., R. Arch. XXI, 1913, pp. 97 f.)

GERONA. — Alabastrum from Ampurias. — In R. Arch. XXI, 1913, pp. 98–100 (fig.), S. Reinach publishes one side of an alabastrum from Ampurias, now in the museum at Gerona (from Discursos leidos en la Real Academia de Buenas Letras de Barcelona, en la recepción pública de D. Joaquin Botet y Siso, Gerona, 1908). A negro in trousers, wearing a quiver and holding an axe in one hand and two spears in the other, is hastening to the right, and looking back. Behind him is a dog. He is followed by a person in trousers, wearing a quiver and a high cap, and carrying a lunate shield and a large curved scimeter. Perhaps a story of the Ethiopian Amazons is illustrated. The vase belongs to an Attic type of the beginning of the fifth century B.C.

NUMANTIA. — Results of the Eighth Campaign. — The results of the eighth and last campaign (August to September, 1912) of excavations at Numantia are reported by A. Schulten in Arch. Anz. 1913, cols. 1–14 (plan). This year's work saw the completion of the several topographical surveys, on different scales and of different scopes, and the excavation of Camp V on the hill of Renieblas. The camp is shown, both by the plan of the barracks and by the pottery, to belong to the first half, probably the first quarter, of the first century B.C. The barracks are made for the new legion of 6000 men, in 30 maniples and 10 cohorts, as organized by Marius in 90 B.C., without Italian allies or Roman cavalry, and without the old division into triarii, principes, and hastati. Thus it is of special value for Roman military history, since it fills the gap that has existed between the Polybian camp as seen in Camps I-III on this hill, and the

Augustan camp as known at Oberaden and Halle, giving us now a complete specimen of the Caesarian camp. Some further details of Camp III were also ascertained or confirmed. A large mound on the Roman road, apparently artificial, and called the Caldron, is conjectured to be the burial mound of the Roman soldiers who fell in the battle before Numantia in 153 B.C. The remains at Soria are of a summer camp, apparently not Roman and, therefore, not connected with the siege of Numantia. Another summer camp, on the upper course of the Tajuna, 20 km. east of Siguenza, is on Celtiberian territory and probably belongs to the Celtiberian wars. A search of the district around Medinaceli, ancient Ocilis, where the Romans had their stores in the year 153, suggests that the modern town represents the Roman settlement which grew out of and absorbed the Roman camp, while the site of the Iberian town was a neighboring hill.

FRANCE

AIX.—Inscriptions.—In R. Et. Anc. XV, 1913, pp. 189-190 (3 figs.), M. Clerc publishes three short inscriptions recently acquired by the museum of Aix. Two are Latin and one is Greek. Greek inscriptions in Gaul are rare.

ALESIA. — Discoveries in 1912. — In B. Soc. Ant. Fr. 1912, pp. 381-385, J. Toutain gives a brief report on the excavations at Alesia in 1912. The so-called cellars at En-Curiot were Gallic houses, as a hearth found in one of them proves. The wells less than a metre in diameter in the living rock were made with a crowbar. At En-Surelot remains of a large Gallo-Roman house were brought to light in which were found many small objects including a child's gold ring with an intaglio representing Eros playing a lyre, a statuette of a woman, and many fragments of pottery, some with potters' names. Among the coins were two of silver with the heads of Septimius Severus and Gordian. At a lower level were wells and other remains of the earlier Celtic town.

A Dolmen as Sanctuary. — In R. Ét. Anc. XV, 1913, pp. 53-59 (fig.), J. Toutain calls attention to a Gallo-Roman building excavated at Alesia in 1912. It consists of two rooms, one 17 m. by 5.10 m., and the other 2.80 m. by 1.70 m. In the larger room is a dolmen. Abundant evidences of fire beneath the dolmen indicate that religious rites were performed there. The building was clearly a Gallo-Roman sanctuary built about the older monument. A second building near by also contains a dolmen, but not so well preserved.

LYONS.—A New Mosaic.—In B. Soc. Ant. Fr. 1912, pp. 369-372, C. G. DE MONTAUZAN reports the discovery of an interesting mosaic at Lyons. There are eight animals, a dog attacking a boar, a bear and a bull face to face, a gazelle pursued by a leopard, and a lion chasing a horse. There is also a dwarf, book in hand, riding an elephant. On either side of his head are letters reading SYG LIBYS. Syg was evidently the name of the dwarf, who was probably a well-known character in the amphitheatre, and whose portrait or caricature the mosaic gives. No similar mosaic is known.

Minor Discoveries. — In C. R. Acad. Insc. 1913, pp. 73-79 (3 figs.), P. Fabia and G. de Montauzan publish three objects found at Lyons (Fourvière). These are (1) a small, ivory head of Pan; (2) a bearded mask

of Bacchus of terra-cotta, which was used as an oscillum (cp. Virgil, Georg. II, 388); (3) a terra-cotta plaque. In R. Et. Anc. XV, 1913, pp. 187–188, the same writers publish the inscription from a Roman altar found at Four-

vière in 1912, in which there is mention of poliones.

MONTESQUIEU-AVANTÈS.—Prehistoric Clay Sculptures.—In C. R. Acad. Insc. 1912, pp. 532-538 (3 pls.), pp. 430-431, the Comte Bégouen describes two bison modelled in clay in high relief found in the cave of Tuc d'Audoubert at Montesquieu-Avantès (Ariège) in 1912. The cave was previously unknown, and was full of stalactites. It extends about 700 m. from the entrance. The bison are 61 and 63 cm. long respectively, and although the clay has cracked in places, they are still in an excellent state of preservation. There is also a sketch of a third bison, 41 cm. long. Imprints of the hands and feet of the workers may still be seen in the cave, as well as the marks of the claws of cave bears, of which many bones were

found. The sculptures belong to the Magdalenian period.

PARIS.—Acquisitions of the Louvre in 1912.—In B. Soc. Ant. Fr. 1912, pp. 432-441, A. HÉRON DE VILLEFOSSE and E. MICHON report the following acquisitions of the Louvre in 1912: a small head from Athens, flat behind, as if from a herm; a standing Alexander, from Egypt; a torso of a woman, a replica of the Farnese Flora, formerly in the Borghese collection; a fragment of a torso wearing a breastplate; a head of a youthful Heracles; a bust of Germanicus; a loutrophoros inscribed EYOYKPATH ₹ | EYOY-KAEOY ≤ | AAMTTPEY ≤; a marble oenochoe with funeral banquet scene; a votive relief representing a female divinity (Bendis?); a sarcophagus with reliefs representing Artemis and Endymion; a piece of a large Roman relief, perhaps from a triumphal arch in honor of Hadrian; a sarcophagus with a relief representing two trees and two winged boys holding a sort of hood for a bird; a fragment of a sarcophagus relief with a reclining Minotaur; three pieces of a large circular plate from Athens with reliefs representing a seated shepherd, a grazing animal, a panther springing upon a horse, two goats fighting, etc.; a fragment of a similar plate with a lion devouring a horse; a Greek inscription of twenty-five lines dating from the year 334-333 B.C., relating to offerings made by women attending the Thesmophoria; a bronze figure of a standing man found in the river bed at Olympia; three early bronzes, two horses and the third a dog, from the same place; two other small horses, five pins, etc., also from Olympia; a small circular object, perhaps a cover, from Chalcis, inscribed $\Delta \in KA : \Delta HMO$, and within $\Pi OTITO$; head of a bull of gold of Mycenaean workmanship from Amyclae; a small lion's head of gold found in a tomb near Orvieto with a vase of Euphronius; the Gallic treasure from Rongères consisting of five objects of gold; a Christian lamp from Carthage; two painted grave stelae from Pagasae; a much broken alabaster statuette representing Ganymede carried off by the eagle.

An Early Attic Head. — In Mon. Piot, XIX, 1911, pp. 171-180 (pl.; fig.,) É. Michon publishes an archaic Attic head recently acquired by the Louvre. He compares it with the Jacobsen head in Copenhagen, and the Rampin and Fauvel heads in the Louvre, all of which are important pieces of early Attic sculpture.

A New Grave Stele. —In Mon. Piot, XIX, 1911, pp. 151-159 (pl.; 5 figs.), M. Collignon publishes a Greek grave stele 1.28 m. high and 0.70 m.

wide acquired by the Louvre in 1911. It represents a nude athlete with a strigil. Beside him are two dogs, and in front a small slave. The upper part of the slab with the head of the youth is broken off.

PUY-DE-DOME. — Roman Reliefs. — In B. Soc. Ant. Fr. 1912, pp. 374-375, L. CHATELAIN calls attention to three Roman reliefs: 1. a piece of a column, 1.20 m. high, from Varennes-sur-Usson ornamented with two designs twice repeated, one an Eros, the other a hare and foliage: 2. a fragmentary relief at Saint-Rémy-de-Chargnat representing a nude, bearded man walking to the right; 3. a stele of coarse stone at Dore-l'Église with a short-haired, beardless figure wearing a tunic. In a triangular pediment above was the inscription D(is) M(anibus). Memori[ae] Priscini.

BELGIUM

BRUSSELS. — Acquisitions of the Brussels Museum. — In B. Mus. Brux. XII, 1913, pp. 17-20 (6 figs.), J. DE Mot describes the classical antiquities acquired by the Brussels museum during the past year. These are: a fresco from Bosco Reale, and three fragments of frescoes from another section of the museum; a statuette and two heads from Cyprus; an Attic grave stele of the end of the fifth century representing a young woman seated and a small slave before her holding a jewel box; another stele of fourth century date with the figure of a young woman holding a bird which she was offering to a child now broken off; an Attic grave stele with the figure of a standing boy, dating from the second century A.D.; a piece of a grave stele of Roman date; a head of Poseidon in relief of Hellenistic or Roman date; a Roman relief representing a cart filled with slain animals, drawn by cattle; a small torso of a Niké from Athens, probably an acroterion; an eagle of white marble; a Mithra relief of white marble; a grave relief from Alexandria; a Cypriote statue of a standing woman; a male head of alabaster from Egypt; fragment of a plastic vase of terra-cotta; two standing terra-cotta statuettes, one of a draped woman and the other of Aphrodite; a mould for the statuette of a seated woman; a Dipylon jug; two other geometric vases; a black-figured white lecythus; two red-figured Attic vases; a Boeotian pyxis; the upper edge of a sarcophagus from Clazomenae; a fifth century mirror handle of bronze in the form of a standing man; and an Ionian bronze helmet from Naucratis.

LA HAMAIDE AND WODECO. - A Hoard of Roman Coins. -Laborers on a new railroad near La Hamaide discovered an earthen pot containing a large number of coins of the imperial epoch (the latest of Valerian the elder). Only about one seventh of the hoard has been recovered and examined. This portion comprises 112 coins of 75 types mostly Antoniniani and denarii. There are effigies of twenty emperors and empresses. The cache was made probably about the middle of the third century. (R. Belge Num. LXIX, 1913, p. 276.)

SWITZERLAND

ANDELFINGEN. - The Necropolis. - At Andelfingen, in the canton of Zürich, a necropolis (27 tombs) has been explored, which has yielded fine objects of La Tène I, phase b (fifth to third century B.C.). One tomb seems to belong to the end of the Bronze Age (700 B.C.). Here as elsewhere the torques is an ornament for women only. (S. R., R. Arch. XXI, 1913, p. 98, after Viollier, Indicateur d'antiquités suisses, 1912, pp. 16–57.)

GERMANY

BERLIN. — Egyptian Jewelry. — In Ber. Kunsts. XXXIV, 1912-13, cols. 22-24 (fig.), MÖLLER publishes an Egyptian chain consisting of thirty-three flies made of gold-leaf. It was an honorary decoration dating from the eighteenth dynasty. He also publishes a ring of the nineteenth dynasty, and a pair of heavy gold ear-rings of imperial Roman date.

An Egyptian Amulet Board. — In Ber. Kunsts. XXXIV, 1912–13, cols. 24–28 (fig.), Möller publishes an Egyptian amulet board 40 cm. long and 24 cm. wide recently loaned to the Berlin museum. In four rows are the figures of sixty amulets cut into the wood and filled in with gold foil or semi-precious stone. In the latter case an inscription in hieroglyphs tells the material of which the amulet should be made.

Seal Cylinders.—In Ber. Kunsts. XXXIV, 1912-13, cols. 158-164 (7 figs.), O. Weber publishes seven seal cylinders recently acquired by the Berlin museum. On one a god with hands folded sits on a throne while



FIGURE 4. — HITTITE BRONZE IN BERLIN.

two standing figures make offering of a goat. This is a very early cylinder, probably dating from before 3000 B.C. A second seal, dating from the end of the third millennium, has a scene representing men fighting man-headed bulls. A third represents a wild goat hunt. This dates from the early part of the third millennium. Another seal has wild goats and an eagle. Still another which dates from the eighth or seventh century has the tree of life with animals on either side in two zones. A late Babylonian seal shows a king standing before a man scorpion. The last is a Persian seal of about 500 B.C. with horsemen hunting boars.

A New Hittite Bronze.—In Ber. Kunsts. XXXIV, 1912–13, cols. 149–158 (3 figs.), O. Weber publishes a Hittite statuette of bronze recently acquired by the Berlin museum (Fig. 4). It is said to have been found near Sidon, and resembles a bronze in the Louvre. It is 15 cm. high, was originally gilded, and set into a base. The arms were attached by silver pins. The figure is that of a man standing stiffly with the left leg advanced. He wears the loin cloth only. The left arm is gone, but the right, which is raised, probably held a weapon. The attitude is the same as that of the well-known relief from Boghazkeui. The helmet, which is missing, may have been of precious metal.

An Early Italian Helmet from Stettin. — The Prehistoric Section of the Berlin museum has recently acquired an early Italian helmet dredged up from the Oder at Stettin. It is shaped like a round cap $13\frac{1}{2}$ cm. high with a socket for a crest, and its decoration consists of lines and concentric circles of dots made by pounding from within. This technique is southern. It was lined with felt. The helmet dates from the early Villanova period, that is from the tenth or eleventh century B.C., and is one of the earliest types of bronze helmet. (C. Schuchhardt, Ber. Kunsts. XXXIV, 1912–13, cols. 28–32; fig.)

The Presidency of the Berlin Archaeological Society.—At the annual business meeting of the Berlin Archaeological Society (January, 1913), Professor Georg Loeschcke was elected president in place of A. Trendelenburg, who resigned after more that thirty years' service on the executive committee. (Arch. Anz. 1913, col. 30.)

BREDDIN. — Prehistoric Graves. — In Z. Ethn. XLIV, 1912, pp. 413–429 (21 figs.), A. Kiekebusch describes prehistoric grave-finds near Breddin (Ostpriegnitz). Urns, packed about with stones, an interesting hanging-urn, swan's-neck-needles, girdle-hooks (a sort of buckle), spiral fibulae and La Tène fibulae, cover a period of a thousand years or more from the third period of the Bronze Age (1400–1200 b.c.), down to the third or second century b.c.

MUNICH. — Classical Antiquities acquired in 1911. — Additions to the collections of antiquities in Munich in 1911 are noted in Arch. Anz. 1913, cols. 14-26 (6 figs.). In the Glyptothek is an Attic relief, a slab from the base of an athletic monument, probably for a pentathlon victory, which represents a man watching the fall of the weapon he has just thrown; fine work of the end of the fourth century (P. Wolters). In the Antiquarium are two small draped female statuettes of bronze, one early Ionian, the other archaic Etruscan; seven Greek bronze weights, with stamped designs or letters, two from Ambracia and one from Thebes, of the sixth century; five archaic terra-cottas from Athens and Boeotia, including two richly painted horsemen and a figure riding on a ram; a Tanagra figurine; a Campana relief (Nile landscape); a gymnasiarch inscription on a marble slab, from Apollonia on the Rhyndacus; a number of small objects of bronze and bone from the sanctuary of Artemis Orthia at Sparta, mostly animals (J. Sieve-KING). The vase collection, beside four fragments of Mycenaean palace-style ware, received five Attic, geometric vases, two proto-Corinthian, one each of Corinthian, Rhodian, Chalcidian and Attic red-figured, the last a rhyton having the form of a negro bitten by a crocodile with a slender decorated vase rising from the middle of the group (J. Sieveking). Of the additions to the coin cabinet, 94 numbers in all, which are published with illustrations in the Mün. Jb. Bild. K. 1911, the most important is a unique electrum stater of Cyzicus, of about 500 B.C., a companion to the likewise unique hekte (1/6 stater) in the same collection. Other unusual pieces are a tetradrachmon from Syracuse (quadriga to left), a didrachmon from Cnidus dating from the Rhodian sovereignty (190-167 B.C.), a didrachmon of Metapontum, a Phoenician tetradrachmon of Alexander I, Bala, of Syria (162-149 B.C.), etc. A Graeco-Phoenician chalcedony scaraboid with engraving of a composite monster (500 B.C.); a late Roman gem with a contamination of Anubis and Hermes Psychopompus; a head of Medusa with Pegasus; ten paste gems, Hellenistic and Roman, one imitating a semitranslucent cameo, are in the same list. (G. HABICH.)

SPEYER. — The Museum. — At Eschweiler Hof a manufactory of pottery with reliefs has been investigated. Ovens, stamps of six potters, and many fragments have been found. The manufactory existed from 90 to 150 a.d. The objects found are in the museum at Speyer. At Rotselberg remains of a great monument have been found, adorned with statues of animals, — a lion devouring a man, two boars, a wild sow with young. (S. R., R. Arch. XX, 1912, p. 430, from the Frankfurt Gazette, October 17, 1912.)

AUSTRIA-HUNGARY

CARINTHIA.—Recent Excavations.—Excavations in the vicinity of the early church found in 1910 at St. Peter im Holz (Teurnia) resulted in several unimportant discoveries. At Zolfeld (Virunum) the rooms on the west side of the forum were cleared, and the mill-pond drained. Among the finds was an altar dedicated to the Genius Noricorum. (R. EGGER, Jh. Oest. Arch. I. XV, 1912, Beiblatt, cols. 17–36; 20 figs.)

FLAVIA SOLVA. — Recent Excavations. — Recent excavations on the site of Flavia Solva near Leibnitz have brought to light remains of three houses, in one of which was a potter's oven. Several complete vases as well as sherds were found. The coins dated from Trajan to Valentinian I. (W. Schmid, Jh. Oest. Arch. I. XV, 1912, Beiblatt, cols. 37–43; 10 figs.)

ISTRIA. — Discoveries in 1911. — In Jh. Oest. Arch. I. XIV, 1911, Beiblatt, cols. 155–196, A. Gnirs describes excavations carried on in Istria in 1911. At Val Bandon, between Pola and Fasana, the excavation of the Roman villa was completed. Several mosaic floors were uncovered and many architectural fragments, some coins, and stamped tiles found. At Pola architectural fragments, a bronze disk 4 cm. in diameter with the bearded head of a satyr, and part of an early Christian sarcophagus came to light. On the island of Scoglio S. Floriano in Pola harbor remains of a small pseudoperipteral temple were discovered; and on the island of S. Caterina an early mediaeval church was excavated. Ibid. XV, 1912, Beiblatt, cols. 5–16 (16 figs.), the same writer reports the excavation of two reservoirs in the south wing of the villa at Val Bandon, and the discovery of a few coins, lamps, an iron key, etc.

KÜKÜLLÖVÁR. — Latin Inscriptions. — In Dolgozatok az Erdélyi Nemzeti Múzeum, IV, 1913, pp. 94–108 (3 figs.), A. Buday publishes twenty-four Latin inscriptions, mostly small fragments, found 3 km. from Küküllövár, Hungary.

NARONA. — Two Latin Grave Inscriptions. — In Jh. Oest. Arch. I. XV, 1912, Beiblatt, cols. 75–82, C. Patsch publishes two Latin grave inscriptions recently found at Vid, the ancient Narona, in Herzegovina.

TRANSYLVANIA. — Roman Villas. — In Dolgozatok az Erdélyi Nemzeti Múzeum, IV, 1913, pp. 109-165 (24 figs.), A. Buday describes two Roman villas discovered, but not completely explored in 1912, one at Magyarosd and the other at Kolozsvár, Transylvania. The objects found in them were of no particular interest.

GREAT BRITAIN

CORBRIDGE. — Excavations in 1911. — In Proc. Soc. Ant. XXIV, 1912, pp. 261-272 (2 plans; 7 figs.), F. J. HAVERFIELD describes the exca-

vations at Corbridge in 1911. It is now known that the site covered at least thirty-five acres, that it was occupied by the Romans from about 80 A.D. to about 350, when it was destroyed, and that it was rebuilt, and then abandoned for good before 400. During 1911 the main field of work lay west of the part already explored, an area occupied by cottages and workshops. It was proved that the great building (Site XI), which was nearly an acre in extent, was destroyed before it was completed. Several unimportant pieces of sculpture came to light. The most important find was the hoard of gold coins noted in A.J.A. XVI, p. 141; XVII, p. 129.

EYEBURY.—The Excavation of a Round Barrow.—In Proc. Soc. Ant. XXIV, 1912, pp. 80-94 (10 figs.), E. T. Leeds describes the excavation of a round barrow at Eyebury near Peterborough in 1910 and 1911. Two smaller mounds lie near it, and there was once still another. A skeleton was found with two scrapers of imported black flint near it, and at some distance a small food vessel.

HIGHAM.—British Gold Coins.—In Proc. Soc. Ant. XXIV, 1912, pp. 318–320 (fig.), W. G. Smith reports the discovery by a man loading flints near Higham, Kent, of a small, globular, hollow flint which contained what he supposed to be eleven brass buttons. These were in reality British gold coins dating from the first century B.C. They are from different dies derived from the gold stater of Philip II. of Macedon. The hollow flint had been used as a purse.

ISLE OF WIGHT.—The Down Pits.—In Proc. Soc. Ant. XXIV, 1912, pp. 65–77 (4 plans), P. Stone reports upon his examination of the pits on the downs on the Isle of Wight. They were not of human origin, but were caused by the action of carbonic acid in the rain water upon weak places in the chalk.

JERSEY.—Recent Excavations.—In Archaeologia, LXIII, 1912, pp. 203–230 (5 pls.; 14 figs.), R. R. Marett reports the results of his excavations at La Cotte de St. Brelade, Jersey, in 1911, where he had begun work in 1910. About sixty flint implements and slight animal remains were discovered. On the little island of La Motte fifteen graves were opened in 1911 and 1912. These were closed at the sides and ends by slabs of stone and had a stone covering. A few skulls were found, and in one burial the body seemed to have been in a crouched position. The graves are probably of neolithic date. A cairn with kitchen middens near it was also examined.

LONDON. — Acquisitions of the British Museum in 1911. — The twelve numbers reported from the Egyptian Department, all of special artistic or historical interest, include a pre-dynastic stone vase in the form of an ape; a large collection of white scarabs, from the Delta, of the Hyksos period; two statues and a painted stele commemorative of high officials, two of them architects of important royal works; a porcelain ankh, probably unique, with cartouche of a seventh century king of Egypt and Nubia; a tomb door with the rare cartouche of Psammetichus III.; an altar from Nubia, of the time of Queen Candace, 25 B.C. The Assyrian objects are two inscribed gate sockets of kings of Ur, about 2500 and 2400 B.C.; a rare, dated, votive inscription and a jasper seal cylinder of similar date; a very early Sumerian bronze figure from the foundation deposit of Lagash; an agate seal of about 1400, dedicated to the weather god; two Assyrian tablets

inscribed with incantations and prayers. (E. A. Wallis-Budge.) The Greek and Roman antiquities include the marble stele of Archagora, from Attica, of unusual size, dating from the fourth century; a Roman sarcophagus relief of a wedding scene; a late Graeco-Roman ivory relief of Athena armed; a sard scarab with a Greek intaglio of the sixth century on the back and a later Graeco-Persian design on the top, from Mesopotamia; a small gold plaque from Rhodes of the sixth century; a silver model of a large temple key, one actual example of which is known; the colossal bronze head of Augustus as a young man, from Meroe in the Sudan; a sixth century bronze-plated chariot, found near Orvieto; a bronze Roman sacrificial scene in high relief; a statuette of a dwarf; a bread stamp; an early Italian helmet from Ancona; various fibulae; two iron stili; terra-cotta figurines from Thebes, Naucratis, etc.; two geometric pyxides with figures of horses standing on the covers; two Early Minoan vases, a steatite pyxis and some fragments from Crete. (A. H. SMITH.) In the Department of British and Mediaeval Antiquities and Ethnography, the early and late stone ages, the bronze and the early iron age are all represented by objects found in the lake dwellings of Yorkshire, East Riding, and on many other sites in Great Britain. Those from some iron-age graves, perhaps Belgic, of the middle of the first century B.C., include some Italian bronzes, probably made in Capua. Objects from outside of Britain are from Jersey, southern Spain, Crete, Sinai, China, and Tasmania. A funeral monument inscribed in Greek, found in Lamb's Conduit Street, London, two cinerary urns from Finsbury Circus, a terra-cotta antefix of the twentieth legion, from the site of a tile factory in Cheshire, and a pig of lead inscribed with the name of Hadrian, are reminders of the Romano-British period. (Arch. Anz. 1912, cols. 597-

Recently Discovered Portions of the Roman Wall.—In Archaeologia, LXIII, 1912, pp. 257-344 (31 pls.; 36 figs.), P. Norman and F. W. Reader describe the discoveries relating to Roman London made between 1906 and 1912. These have to do chiefly with the city wall, and were as follows: Near the Tower several pieces of it came to light; another with the Roman ditch at America Square; at Aldgate remains were found at three different places; at 123 Roman Wall Street a small piece; at All Hallows Church a bastion; at Christ's Hospital several pieces with three bastions, including the angle bastion where the wall turned to the south; at Newgate a small bit of the Roman gate; at the Old Bailey another piece; and in Lower Thames Street a small piece of the south wall. Miscellaneous discoveries of no great importance were made in many places in the city. Appendices are added by A. S. Kennard on the non-marine molluses, etc.; by A. H. Lyell on the seeds and woods; and by F. Lambert on the pottery and coins found.

OXFORD. — Acquisitions of the Ashmolean Museum in 1911. — A report from the Keeper of the Ashmolean Museum, D. G. Hogarth, is published in Arch. Anz. 1912, cols. 604–612. The Egyptian section received a large, finely painted coffin, a rare and perhaps unique work, of the transition period between the sixth and the eleventh dynasties, found on the east bank of the Nile, south of Akhmin, and a number of articles from Petrie's excavations, which include the following: From Sinai, fragments of pottery and alabaster vases, from which two grotesque vases have been restored; from

Memphis, two blue-glazed vases and a snake's head amulet, of the sixteenth and twenty-third dynasties; from Hawara, a panel portrait of a lady, of a dark, probably Armenioid, type, a canopic vase, and three lids; from Gerzeh, stone beads and apparently two iron beads, from prehistoric tombs: a mass of material as yet unselected, from the tombs of Faras in Nubia. For the prehistoric Mediterranean section a number of valuable and interesting Cretan and Cypriote objects were obtained from the unused material belonging to the government of Crete and by exchange from the Metropolitan Museum in New York. A Late Minoan II. amphora, restored from fragments, is perhaps the finest extant example of Cretan marine style. Some vases from the interior of Asia Minor suggest the intimate connections of that region with the Middle Minoan world of the Aegean. Other precious objects are facsimiles of the Hagia Triada sarcophagus, the "boxer" filler, and the Phaestus disk. Among the Greek vases are two panathenaic vases, put together more or less completely from fragments, one of which is of the early sixth century, the other, dated by the name of the archon (Asteus, 373/2) is the earliest known instance of such dating. A gift of red-figured fragments found at Cervetri has yielded a signed cylix of Brygos, making the tenth signed vase of his known. A fine white Attic lecythus that had been put away as not genuine has been cleared of the forged part of the decoration and restored to exhibition. A terra-cotta sarcophagus of the usual Clazomenian type and various minor objects are mentioned. The Graeco-Roman and Roman section has received some gifts of pottery, terracottas, and bronzes from Italy, and the Romano-British section, a number of loans.

WELWYN.—Late Celtic Finds.—In Archaeologia, LXIII, 1912, pp. 1–30 (3 pls.; 23 figs.), R. A. Smith publishes an account of the late Celtic antiquities found during the construction of a road at Welwyn. Herts., in 1906. Two vaults were discovered containing, among other things, eleven slender amphorae of Greek origin, three iron firedogs, a pair of silver vessels of classical origin, silver handles for a cylix, and three heavy bronze masks of Celtic origin. The writer compares similar vaults opened at Stanfordbury.

AFRICA

ALGERIA. — Two Latin Inscriptions. — In R. Ét. Anc. XV, 1913, pp. 38-46, R. CAGNAT publishes two Latin inscriptions. One, from Timgad, reads Imp. Ca[esari] | Traiano [Hadri]|ano Aug. [curia Tra]|iana vet[eranorum] | leg. II[I Aug.], pointing to a curia of veterans at Timgad. The other, from Djemila, is a fragmentary inscription in four lines from the architrave of a temple which was dedicated Genti Septim[iae Aur]eliae.

CARTHAGE. — An Abraxas Gem. — In B. Soc. Ant. Fr. 1912, p. 411, P. Monceaux publishes an abraxas gem found at Carthage with a bee engraved on the small side, and a serpent biting its tail on the large. The words BIEL EPPEEEL EBAEL 100A occur twice.

UNITED STATES

BOSTON. — Acquisitions of the Museum of Fine Arts in 1912. — In the *Thirty-seventh Annual Report* of the Boston Museum of Fine Arts, pp. 89-91, L. D. CASKEY makes brief mention of the acquisitions during

1912. There were in all 264 objects acquired, most of which are suitable for exhibition. They include nineteen vases of ancient glass, a small Cypriote head of limestone of good archaic style, a Corinthian cylix, and forty-eight miscellaneous objects from Cyrene, chiefly terra-cotta statuettes.

NEW YORK.—Recent Acquisitions of the Metropolitan Museum.
—In B. Metr. Mus. VIII, 1913, pp. 28–29, G. M. A. R. reports the following acquisitions of the Metropolitan Museum in 1912: A colossal portrait bust of red porphyry (Fig. 5) dating from the second century A.D.; an archaistic head of Athena (Fig. 6); a fragment of a sixth-century stele representing



FIGURE 5.—PORPHYRY BUST IN NEW YORK.



FIGURE 6. — ARCHAISTIC HEAD OF ATHENA.

a youth carrying a staff; a Greek gravestone in the form of a vase with a relief of a mother and child, and a man and woman clasping hands; a small relief representing a horseman; a marble column with a serpent and wreath; and the head of an old woman. Among the fourteen bronzes acquired are a large statuette of Aphrodite of the Cnidian type, of late Greek date; a statuette of a grotesque figure; two archaic statuettes, one a Silenus holding a nymph, and the other a runner; ten bronze vases with fine blue patina, apparently all found together. Thirteen terra-cotta vases were acquired, including a very fine large white lecythus; a perfectly-preserved Phalerum jug; a Mycenaean cup with high foot; a geometric vase shaped like a pomegranate; a large fragment of a Corinthian vase; and several pieces of black- and red-figured Attic pottery. Six terra-cottas were acquired, including a statuette of a woman holding a mirror; two archaic reliefs, one representing two men fighting, and the other a woman and a youth with a rooster; and a beautiful Melian relief dating from the fifth century B.C. representing Phrixus carried by the ram over the sea. Other acquisitions were some finely preserved glass vessels, pieces of bone decorated with reliefs, a Mycenaean gem, and a

gold ornament dating from the sixth century B.C. *Ibid.* pp. 50-52 (3 figs.), E. R. discusses the porphyry head mentioned above. It is 57.40 cm. high, the height of the head alone being 33 cm. It is perfectly preserved except the tip of the nose and a few slight breaks in the hair. It is a fine piece of



FIGURE 7. — ATTIC STELE IN NEW YORK.

sculpture, evidently the portrait of a general, and the writer suggests that it may represent Aelius Verus, whom Hadrian intended for his successor. He also discusses the archaistic Athena head, which is of white marble, 12.50 cm. high, and beautifully modelled. Ibid. pp. 93-99 (4 figs.), E. R. publishes an early Attic grave stele acquired in 1911. It is the largest of its kind known, and when complete must have been more than 15 feet high. The monument consisted of three members, a rectangular base, a tall slab decorated with sculpture, and a finial consisting of a flat portion with a



FIGURE 8.—ROMAN PORTRAIT BUST IN NEW YORK.

painted design of palmettes and scrolls, above which was carved a seated lion or sphinx. On the main slab (Fig. 7) stands a nude youth facing to the right, holding a pomegranate in his left hand and having an aryballus attached to his left wrist. The right arm and almost all of the torso are missing. Beside him stands a small draped female figure, the head of which

is in Berlin. On the base was an inscription of which the beginning of three lines is preserved. The parts of the monument which still remain are in an almost perfect state of preservation and retain many traces of paint. The stele is to be dated 550–525 B.C. *Ibid.* pp. 93, 101–102 (2 figs.), E. R. also describes a remarkable Roman portrait head (Fig. 8) acquired in 1912. It has suffered no damage whatsoever. The hair was apparently indicated by paint. The portrait has not been identified, but it represents a contemporary of Julius Caesar or Augustus.

Acquisition of Graeco-Buddhistic Sculptures by the Metropolitan Museum. — In B. Metr. Mus. VIII, 1913, pp. 133-137 (2 figs.), J. B. discusses briefly Graeco-Buddhistic sculpture in connection with thirty-three reliefs from Peshawar (ancient Gandhara) recently acquired by the Metropolitan Museum. Most of them are carved in blue slate, but a few are of soapstone and a few of stucco. There are six heads of Buddha; the head of a woman; a seated and four standing Boddhisattvas; a seated figure with body turned at the waist; a torso of a woman with a drum; a large right hand of Buddha with fingers webbed; two panels representing tritons, and a third with six standing marine deities, at the left of whom is a modified Corinthian column; three Buddhas in meditation; two Buddhas seated under arches; two Brahmans; a Buddha worshipped by four adorers; the worship of the Boddhisattva; a seated female figure and two Amazon guards separated by a Corinthian column; three small panels with the head of a man in low relief; and a large upright panel with superimposed compartments, one containing single figures and the other groups of two.

Egyptian Furniture and Musical Instruments.—In B. Metr. Mus. VIII, 1913, pp. 72-79 (11 figs.), C. L. R. describes several pieces of Egyptian furniture acquired by the Metropolitan Museum in 1912. These are a couch frame dating from about 3400 B.C., which was too short to lie on and was perhaps used as a bier; two low stools; two folding stools, one with the leather seat preserved; and a chair with the back made of upright slats, the seat originally of linen string interwoven, and the legs in imitation of lion's legs, dating from about 1500 B.C. There were also acquired two small musical instruments of the harp family, one with four and the other with

five strings dating from about 1600 B.C., and a Coptic lute.

EARLY CHRISTIAN, BYZANTINE, MEDIAEVAL, AND RENAISSANCE ART

GENERAL AND MISCELLANEOUS

CYPRUS.—The Tomb of Leodegarius de Nabanalis at Famagusta.

—In Proc. Soc. Ant. XXIV, 1912, pp. 312–317 (fig.), G. Jeffery announces the discovery of the tomb of Leodegarius de Nabanalis, bishop of Famagusta and Tortosa. The incised slab which covered the tomb is similar to other fourteenth century tombstones, and in fairly good condition.

The Franciscan Church at Famagusta. — In Proc. Soc. Ant. XXIV, 1912, pp. 301-313 (plan; 2 figs.), G. Jeffery describes his recent efforts to protect what remains of the Franciscan church at Famagusta, Cyprus. He also gives a plan of the church, and publishes eight epitaphs from the floor.

POLTAVA. — A Byzantine and Persian Treasure. — In B. Soc. Ant. Fr. 1912, pp. 385-387, A. HÉRON DE VILLEFOSSE describes briefly on the authority of Baron de Baye the remarkable Byzantine and Persian treasure found by two small boys on the steppes near the village of Molaja Pereschtina, Government of Poltava (see A.J.A. XVII, pp. 141 f.). The oldest object was a piece of Sassanian plate with the portrait of Sapor II, dating from the fourth century. There was also a silver amphora, gilded, of the seventh or eighth century; a large silver plate, of the sixth or seventh century, with the monogram of Christ, alpha and omega, and a Latin inscription stating that it had been cast from pieces of earlier plate; parts of two necklaces made of coins of Heraclius; pieces of a sword with gold scabbard; bracelets with incrusted decoration; a large gold pitcher; eleven gold cups with decoration in relief, one of them also having carnelian and other stones inlaid; ten similar silver cups; a large gold spoon with incrusted decoration. The objects of gold were more than 400 in number. The treasure is now in St. Petersburg.

ITALY

ASSISI.—Unedited Frescoes of Simone Martini.—The figures of saints decorating the windows of the Cappella S. Martino in the lower church of S. Francesco at Assisi have escaped the notice of students. They are published by G. Cristofani in L' Arte, XVI, 1913, pp. 131–135.

CITTA DI CATELLO. — Discovery of Frescoes. — In a locality called Morra, near the town of Citta di Catello, two frescoes have recently been discovered in the church of S. Crescentino, forming part of a series depicting the Passion. They are clearly attributable to Signorelli. (Rass. d' Arte, October, 1912, p. I.)

FERMO.—New Paintings in the Church of S. Agostino.—Recent discoveries in the church of S. Agostino at Fermo include frescoes representing scenes in the life of the Virgin, a number of figures of Saints and Madonnas, and an interesting triptych representing the "Madonna of Pity," with Saints. All the paintings belong to the Quattrocento, but the triptych still betrays the tradition of Byzantine painting. (Rass. d' Arte, October, 1912, p. I.)

GENOA. — A Painting by Brueghel the Elder. — A painting in private possession in Genoa represents a "Village Feast." It is published in Rass. d' Arte, XII, 1912, pp. 187–188, by C. ASTOLFI, who assigns it on internal evidence to Peter Brueghel the Elder.

MILAN.—Three English Alabasters.—Three English alabasters are published by R. Papini in Rass. d' Arte, XII, 1912, pp. 160–161. The first is a fragment in the Castello Sforzesco representing the Betrayal; the second a triptych (Betrayal, Crucifixion, Deposition) in the Bagatti-Valsecchi collection; the third a triptych-box with the head of John the Baptist, a half-figure of Christ, and symbols. They all belong to the English group of alabaster reliefs of the fifteenth century.

NARNI. — Discovery of Frescoes. — In a monastery of Monte S. Croce near Narni, recent explorations have brought to light, besides the Crucifixion discovered in 1911, two large compositions of the Nativity and Adoration of the Magi, which belong to the eleventh century. Another fresco of later

date represents a series of saints. (Rass. d' Arte, October, 1912, p. II, and

May, 1913, p. I.)

PERUGIA.— New Frescoes. — In a niche to the right of the apse of S. Francesco a Montone frescoes have been discovered dating from the middle and latter half of the fifteenth century. At the back of the niche is a Madonna with Saints, and near this are other frescoes representing saints dated 1446 and 1447. (Rass. d'Arte, February, 1913, p. I.)

ROME.—A Sarcophagus from the Via Tiburtina.—A little more than 6 km. from the city, on the left side of the road, there has been found a marble sarcophagus 2.15 m. long, 0.90 m. high, and 0.97 m. wide. A medallion on the front contains busts of a man and wife, finished except for the heads, which were evidently left to be completed at a later time. The cover represents the story of Jonah, and beneath the medallion is a scene from rural life. (E. GHISLANZONI, Not. Scav. IX, 1912, pp. 230 ff.)

Frescoes by Fra Angelico.—Alterations to the chapel of Nicholas V at Rome have brought to light fourteen figures painted on a gold background, which form part of the original decoration of the chapel by Fra Angelico. The style of these figures is clearly that of the earlier master and not of Benozzo Gozzoli. (Rass. d' Arte, March, 1913, p. II.)

A Portion of Giovanni Bellini's Pesaro Altar-piece. — The Coronation of the Virgin, by Giovanni Bellini in S. Francesco in Pesaro, has at the top of its frame a square moulding for a smaller picture, now filled with a "St. Jerome doing Penance" of the seventeenth century. The original, which once filled this space, is the Pieta of the Vatican Gallery, which now bears the name of Bartolomeo Montagna. Measurements and style make the ascription clear, and in Burl. Mag. XXII, 1913, pp. 260–269, G. Frizzoni publishes a restored photograph showing the original appearance of the altar-piece, and makes a plea for its actual recomposition.

Prescoes in S. Maria Maggiore. — The removal of a false vault in the ceiling of the chapel of S. Michele and S. Pietro ad Vincula in S. Maria Maggiore, has brought to light the figures in fresco of the four Evangelists, which are published by G. Galassi in L' Arte, XVI, 1913, pp. 107–109. The style is that of a follower of Piero dei Franceschi; Galassi rejects the attribution of the frescoes to Benozzo Gozzoli, defended by G. Basiotti in an article in Boll. Arte, VII, 1913, pp. 76–78.

S. DONNINO A MAIANO.—The Pieve.—A description of the church at S. Donnino a Maiano is published by M. Salmi in *Boll. Arte*, VII, 1913, pp. 116–124. It is remarkable for the peculiar decoration in brickwork of the apse, which the writer assigns to the end of the eleventh century, a number of frescoes of the Aretine school of the Quattrocento, and a curious polychrome Madonna in wood of the same period.

TESTANA. — A Curious Bas-relief. — The accompanying illustration (Fig. 9) represents a detail of a relief preserved in the little church of Testana near Genoa. The subjects entire are the Crucifixion, the Descent from the Cross, the Deposition, and the Resurrection (?). The date of the work seems to be ca. 1500, and the style un-Italian, having more affinities with the sculpture of Flanders. The piece is discussed by A. Luxoro in Boll. Arte, VII, 1913, pp. 191–194.

VELLETRI. — A New Gentile da Fabriano. — The Madonna and Child reproduced in Figure 10 is preserved in the church of S. Apollonia at



FIGURE 9. - RELIEF OF TESTANA.

Velletri, and was originally in SS. Cosma e Damiano at Rome. It was recognized as a work of Gentile by Lionello Venturi, who publishes it in *Boll. Arte*, VII, 1913, pp. 73–75. Gentile came to Rome shortly after 1425, and the picture must therefore date between that time and his death in 1427.

SPAIN

SALAMANCA.—An Altar-piece by Bermejo.—An altar-piece in the old cathedral at Salamanca is attributed to Bermejo by V. von Loga in Burl. Mag. XXII, 1913, pp. 315–316. The writer makes the attribution on the basis of resemblances to the "Virgin of the Saw," and the St. Michael at Tous near Alcira. His discussion includes a critique of the attributions hitherto attempted in the oeuvre of this painter.

FRANCE

LISIEUX.—A New Painter of the Roman School.—In Boll. Arte, VII, 1913, pp. 107-111, U. Gnoli publishes a Madonna and Saints in the museum of Lisieux (Calvados) signed by a certain Antonio de Calvis. It was brought from a Roman monastery, and the painter is evidently of the Roman school. It is assigned by Gnoli to the atelier of Antoniazzo Romano. Another work of his may be found in the museum of Lyons, a copy of Giotto's famous Navicella. The signature, which is the same as that of the picture at Lisieux save for the name of the artist (Perugino!), is false.



FIGURE 10. - MADONNA BY GENTILE DA FABRIANO AT VELLETRI.

G. Galassi, in his article on the newly discovered frescoes of S. Maria Maggiore (p. 462), believes that the painter is a follower of Melozzo rather than Antoniazzo, and ascribes to him the frescoes of the Oratory of S. Giovanni Evangelista at Tivoli. He also doubts his authorship of the picture at Lyons.

BELGIUM

BRUSSELS.—Frankish Antiquities.—In B. Mus. Brux. XII, 1913, pp. 22–23 (4 figs.), A. L. reports the acquisition by the Brussels museum of three Frankish brooches, two of gold and one of bronze, inlaid with glass, from Overboulaere in Flanders; and a Frankish ring from Vesqueville inscribed utere felix followed by the monogram of Christ.

GERMANY

SIENESE PAINTINGS IN GERMAN COLLECTIONS. — In Rass. d' Arte, XII, 1912, pp. 162–164, P. Schubring describes two unpublished panels of an altar-piece by Giovanni di Paolo in the museum of Muenster. They represent respectively the Birth of St. John Baptist and St. John before Herod. Another panel is in a private collection in Rome, and represents the Annunciation to Zacharias. In the same article three Sienese pictures in the Schmietgen Museum at Cologne are reproduced: a St. John Evangelist by Giovanni di Paolo; a Risen Christ by Vecchietta; and an Allegory of the Madonna and Eve, by a follower of Ambrogio Lorenzetti.

BERLIN.—Acquisitions of the Kaiser-Friedrich Museum.—To the collection in the Kaiser-Friedrich Museum, Berlin, there have recently been added: two Hispano-Moresque capitals of the end of the tenth century, and a Moorish double window from Murcia (XIV century) (Ber. Kunsts. XXXIV, 1912–13, cols. 17–22); a painting representing St. Christopher, by Adam Elsheimer (ibid. cols. 125–217); and a Portrait of a Lady by Filippo Lippi (described by W. Bode in Jb. Preuss. Kunsts. 1913, pp. 97–98).

Sienese Miniatures of the Fourteenth Century.—In Ber. Kunsts. XXXIV, 1912–13, cols. 105–114, Weigelt publishes a number of miniatures which originally belonged to a Latin manuscript illustrated by some Sienese master of the early Trecento. The painter shows the effect of the teaching of Simone Martini and Tegliacci. Venturi has already ascribed four small pictures to him, of which the most important is a Coronation of the Virgin in the Carrand collection in the Bargello. Weigelt adds to his oeuvre a small Madonna in the Louvre.

HEIDELBERG. — Fifteenth Century Miniatures of the Witz School. — In Mh. f. Kunstw. VI, 1913, pp. 18-26, H. Brandt publishes the miniatures of a manuscript in the University Library at Heidelberg (Cod. Pal. Germ. 322). The text is Otto von Passau's 24 Alten oder der goldene Thron, and the codex is dated 1457. The miniatures represent St. John writing Revelation on Patmos, the twenty-four elders, etc., and betray their affinity with the atelier of Conrad Witz.

POSEN.—Italian Pictures in the Raczynski Collection.—The Italian paintings in the Raczynski collection at Posen are discussed by G. Cagnola, in Rass. d' Arte, XIII, 1913, pp. 1-4. The most important are: a Virgin with Sts. Christopher and George, by Ambrogio da Fossano; a Christ

blessing by Filippo Mazzola; a portrait-group by Sofonisba Anguissola; a Madonna by a Flemish painter, but based on the composition of Cesare da Sesto's adaptation of the St. Anne, Virgin and Child in the Louvre; a Madonna with Donor and Family of the school of Titian; and a Miracle of S. Domenico by Bernardo Daddi.

GREAT BRITAIN

CASSONE PANELS IN ENGLISH COLLECTIONS. — P. Schu-BRING continues his account of the cassone panels in England in Burl. Mag. XXII, 1913, pp.196-202, 326-331. The collection of the Earl of Crawford contains two complete cassoni, with the paintings on the inside of the lid, representing husband and wife, a feature rarely preserved. Other lid paintings of the same character are found on chests of the Somers collection in Eastnor Castle, Herefordshire. The Crawford chests came from the Frescobaldi palace in Florence. The outside paintings are mythological stories by an artist of the Bicci school, who also painted a cassone front belonging to Conte Carlo Cinughi of Siena. A second pair of cassoni in the Crawford collection, representing the Story of the Rape of the Sabines, is dated 1465 by the arms which it bears of the Davanzati and Redditi families, who formed a matrimonial alliance in that year. Two fine panels in Eastnor Castle represent a history of the quarrel and reconciliation by the Pope of two brothers, which Schubring suggests may be connected with the reconciliation of the Medici and Albizzi by Eugenius IV in 1433.

LONDON.—An Early Christian Bronze Statuette.—In Byz. Zeit. XXII, 1913, pp. 143–146, O. M. Dalton publishes a bronze statuette of the British Museum, said to have come from Asia Minor. It represents a literatus seated on a fald-stool, holding an open book in his right hand, evidently an author in the act of composing his work. Its nearest parallel is a porphyry statue in the museum at Cairo. The base bears an inscription in characters of Carolingian date: †PETRVS, but the date is rather the

fifth or sixth century.

A Madonna by Antonello da Messina.—In the collection of Mr. Robert Benson in London there is a Madonna by Antonello da Messina which has hitherto been attributed to Marcello Fogolina. In Gaz. B.-A. IX, 1913, pp. 189-203, B. Berenson points out that the Madonna shows obvious affinities with the Virgin of Antonello's Annunciation in the Syracuse museum, and with the woman carrying a child in the St. Sebastian by the same master in Dresden. By comparison with these and other works he dates the painting ca. 1475-6. The writer also shows the untenability of Toesca's attribution of the picture to Antonello's son Jacopo, and adds some notes on two pictures of a "Spanish-Sicilian" school, one in the National Gallery, representing the Madonna crowned by angels, the other a St. Rosalia in the Walters collection in Baltimore.

The Signature of the "Negro Archer."—In Burl. Mag. XXIII, 1913, pp. 36-37, D. S. MACCOLL announces that the recent cleaning of the signature of the "Negro Archer" in the Wallace collection, hitherto accepted as a Rembrandt, has brought to light a portion of the real painter's name, which he has not been able to read satisfactorily, but it is certainly not the name of Rembrandt. The style points to a pupil like Flinck or Heerschop, and it is possible that the letters are the last syllable of the latter artist's name.

OLD SARUM.—Excavations in 1911.—In Proc. Soc. Ant. XXIV, 1912, pp. 52-65 (4 pls.; 2 plans), W. Hawley reports upon the excavations at the Castle of Old Sarum in 1911. No important walls were discovered, but many details of the castle were learned and several pieces of glazed mediaeval pottery found.

UNITED STATES

CAMBRIDGE.—A Painting by Ambrogio Lorenzetti.—In L'Arte, XVI, 1913, pp. 206-207, J. H. Edgell publishes a triangular panel, evidently a pinnacle of an altar-piece, now in the Fogg Museum of Harvard University, which he attributes on internal evidence to Ambrogio Lorenzetti.

ENGLEWOOD.—A Standard from Foligno.—In Rass. d'Arte, XII, 1912, pp. 170-171, F. M. Perkins publishes a standard representing the Madonna of Pity from the palace at Foligno. It is now in the Platt collection, Englewood, New Jersey.

NEW YORK.—Acquisitions of the Metropolitan Museum.—The Metropolitan Museum has recently acquired: Four Saints by Correggio (B. Metr. Mus. VIII, 1913, pp. 26–28); a wooden statue of St. John Evangelist, English, fourteenth century (ibid. pp. 34–35); a number of examples of stained glass (ibid. pp. 46–50); a triptych by Adriaen Isenbrant (ibid. pp. 67–68); an allegorical sketch for a ceiling by Tiepolo (ibid. pp. 70); the Miracle of the Loaves and Fishes by Tintoretto (ibid. pp. 100–101); and an Adoration of the Kings by Hieronymus Bosch (ibid. pp. 130–133).

A Bust of the Infant St. John. — A bust of the infant St. John in the collection of Mr. George Blumenthal, in New York, is published in L' Arte, XVI, 1913, pp. 165–166, by F. M. PERKINS, who assigns it to Antonio Bossellino.

AMERICAN ARCHAEOLOGY GENERAL AND MISCELLANEOUS

BAHAMAS.—Lucayan Artifacts.—In Am. Anthrop. N. S. XV, 1913, pp. 1-7 (6 figs.), Theodore de Booy treats of Lucayan artifacts from the Bahamas, objects found by the G. G. Heye expedition of 1912, in the interests of the Heye Museum, New York City. These include a wooden paddle from Mores Island (cf. the paddle figured in the Rum Cay petroglyphs); a duho, or wooden stool, from a small, open cave at Spring Point on Acklins Island; a fractured ceremonial celt from Mariguana Island, which may be reckoned "among the best examples of prehistoric stonework from the Bahamas." The low relief figure on the celt is seated.

BRAZIL.—An Expedition up the Araguay River.—In Z. Ethn. XLIV, 1912, pp. 36-59 (31 figs.), W. KISSENBERTH gives an account of an expedition up the Araguay River in Brazil and describes the appearance and customs of the aborigines. *Ibid.* pp. 130-174 (20 figs.) MAX SCHMIDT tells of travels in Matto Grosso in 1910.

MEXICO. — Miscellaneous Discoveries. — In Bol. Mus. Nac. de Arquéol. II, 1912-13, pp. 139-140 (7 pls.), P. Henning has some brief notes on discoveries made in Mexico between December 22, 1912, and January 9, 1913. At Tlahuac, besides a well-preserved teocalli, were found a femur

engraved with a figure of Quetzalcoatl, three ceramic *cipactli*, an andesite Chalchiuhapaztli; at **Zapolitlán** an *ome cituatl*, thirty-four ceramic objects belonging to the Teotihuacan culture; at the hacienda de San Nicolas y

Tezontla ceramic objects (images, heads, etc.) of unique type.

PERU. — Machu Picchu. — In National Geographic Magazine, XXIV, 1913, pp. 387–573 (245 figs.), under the title 'In the Wonderland of Peru,' Hiram Bingham gives a popular account of the work accomplished by the Peruvian expedition of 1912, under the auspices of Yale University and the National Geographical Society. This was concerned with the archaeology of Machu Picchu, the city of refuge on the mountain-top, the so-called "cradle of the Inca Empire," topographical, archaeological, and anthropological reconnaissances of several regions, including the Cuzco country (vertebrate remains in particular), Vitcos (identification of ancient Inca place-names), Aobamba valley, Choqquequirau, highlands of southern Peru (anthropometric measurements of 145 individuals). Professor Bingham believes Machu Picchu to be "the original Tampu Tocco, from which the Incas came when they started on that migration which led them to conquer Cuzco and to establish the Inca Empire."

Ruins of Tiahuanaco. — In Mitt. d. k. k. Geogr. Ges. in Wien, LVI, 1913, pp. 226-236, 267-297 (13 pls.; 10 figs.), Julius Nestler treats of the ruins of Tiahuanaco, both on the basis of his own recent investigations and with reference to the literature of the subject. According to the author, a stone plate discovered by him is really, as the ornamentation, etc., indicates, "a fragment of a second great gateway, with a frieze similar to that of the famous 'sun-door,'" the most remarkable of the monuments of Tiahuanaco. Dr. Nestler also discovered a statue with symbolic carvings. Interesting are the discoveries (the most interesting and important is a stone plate with relief figure) at Taraco, on Lake Titicaca, near Tiahuanaco. The author discusses at some length Alcobaça's account, concluding that the latter did not know the ruins from personal observation. He holds to his opinions expressed in 1908 and 1904 as to the age of the culture of Tiahuanaco, — "one of the oldest cultures on the globe," "a culture more significant for the totality of human culture than that of Troy," etc.

Ruins of Moche. — In Journal de la Société des Américanistes de Paris, N. S. X, 1913, pp 95-117 (3 pls.; 20 figs.), MAX UHLE gives the results of investigations of the ruins of Moche ("Huaca del Sol," "Huaca de la Luna," etc.), representing pre-Incan and pre-Tiahuanacan culture, or "proto-Chimu," as he terms it. Black Chimu vessels, Incaic vessels, jugs, bearded dolls, clay and gold objects, ornamented vessels of various sorts, textiles, polychrome vessels, etc., are described and figured. Some vessels similar to those of Tiahuanaco also occur. The polychrome pottery period seems to

have been followed by at least three other periods.

An Archaeological Journey. — In Z. Ethn. XLIV, 1912, pp. 201–242 (35 figs.), E. Seler gives an account of an archaeological journey in Peru and in Central America, incidentally discussing the chronology of the monuments and pottery of Tiahuanaco, on Lake Titicaca, in relation to those of the rest of Peru. The level of the lake was formerly 34.37 m. higher than now, and these ruins at the higher level antedate by a long period the Inca dynasty, just as the Tiahuanaco civilization has been proved by Uhle to have come first in many parts of the coast regions. Such rectangularly

polygonal walls as those at Cuzco, where the stones are so exactly fitted that a penknife blade cannot be inserted between them, usually attributed to the Incas, must also belong on architectural grounds to a pre-Inca period between those of Tiahuanaco and the Incas when the level of the sea was 16.64 m. higher than now. The fact that the most ancient temples were not oriented in relation to our north and south does not prove, he thinks, that they belong to a time when the earth's axis had a different relation to the ecliptic. Uhle's contention that differences in the vases, which others attribute to local differentiation, are really chronological, Seler thinks unproved as yet. The latter part of the article treats of the pottery and monuments of various places in Central America.



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Archaeological Institute of America

FOURTH PRELIMINARY REPORT ON THE AMERICAN EXCAVATIONS AT SARDES IN ASIA MINOR

THE fourth excavating season at Sardes closed with the end of June, 1913, after a period of five months of work. From the point of view of the history of art it was unquestionably our most brilliant season thus far, and the discoveries in the field



FIGURE 1. — TEMPLE OF ARTEMIS AT SARDES; FROM THE EAST.

of inscriptions were hardly inferior in importance to those of last year. The lines of the great excavations about the temple of Artemis were carried back a considerable distance on all sides, leaving the temple in the midst of a broad open space (Fig. 1) instead of at the bottom of a narrow and deep trench as it appeared to be at the close of last season. In this newly

excavated territory there were unearthed, at the northwest, the foundation walls of a large group of houses on different levels, of different periods, and of varying qualities of construction, a small building, existing only in foundations, with a flight of marble steps, and a tunnel-vaulted tomb of the Christian period. On the north side there were more foundation walls of poor construction at high, Roman levels and a massive structure of Roman concrete with thick walls and projecting buttresses that was excavated with great difficulty and rendered impossible an



FIGURE 2. - HEAVY WALLS OF ROMAN CONCRETE NORTH OF TEMPLE.

examination of the lower levels in its vicinity (Fig. 2). To the east of the temple a precipitous mass of hard-packed earth 40 feet high was encountered not 100 feet from the façade of the building. The earth was as hard as the hardest parts of the acropolis formation, and the steep slope was well covered with constructions of the Roman period and strewn with pottery fragments not earlier than the first century. This discovery held up for the year all further progress in this direction.

The clearing on the south revealed only fragments of some walls of boulders, foundations of poor constructions of late date, and a cemetery of the Mediaeval Byzantine period. In all this digging the levels were pretty well marked, by Lydian pottery on the lowest, by Greek coins on the intermediate, and by Roman and Byzantine pottery and coins on the upper levels. The inscriptions found here were not numerous, though most of those discovered were of more than usual interest and importance.

The one disappointment of the year was the failure to find the temple of Zeus, indications of which appeared to be very

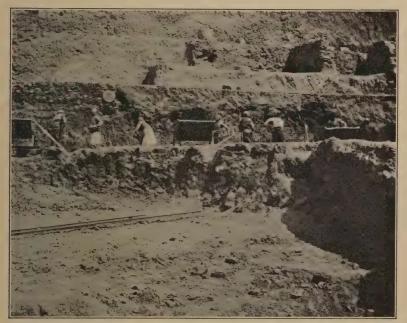


FIGURE 3. - ROMAN CONSTRUCTIONS ON SLOPE TO EAST OF TEMPLE.

promising at the close of the last season. The steep mass of earth to the east and southeast of the temple of Artemis seemed to preclude all further search in those directions, and the great building of Roman concrete mentioned above delayed progress toward the north and northeast. It is not impossible that this building, with its thick outer walls and intricate system of interior cross walls, covers the temple for which we are look-

ing, and this can be definitely determined in one more season. On the arrival of Mr. William Warfield, the geologist of the expedition, it was made clear that the hard mass at the east and southeast of the temple was not an original formation, but a great fragment of the acropolis hill, which had fallen at some time during the historical period and which had been redistributed and had hardened again, forming a steep wall directly in front of the temple. The archaeological evidence seems to prove that this catastrophe was coincident with the earthquake of the year 17 A.D.; for it is plain that the steep slope was terraced and masked by small buildings - exedras and the like — not earlier than the first century (Fig. 3). The pottery found in the terraces further supports this theory; while excavations under the foot of the slope brought to light many fragments of Lydian pottery of an early date. It is now important to devise a method for clearing away enough of this late geological deposit to reveal the condition of the Lydian and Hellenistic objects under it, and, if these results are of sufficient importance to warrant the removal of the mass of hardened débris, to devote time and means to this very difficult task.

Toward the end of the season a discovery was made which gives hope that the end of a sacred way has been found. This is a row of foundations and bases of monuments extending northward from the north side of the temple in the direction of the great high road which runs east and west. would represent the west side of a broad road extending out from the middle of the temple on its minor axis. An important inscription and the first significant remains of sculpture were found among the bases at this point. The inscription in question is a short bilingual dedication in Lydian and Greek upon a statue base. It is the first and only bilingual inscription of its kind that is known thus far. The sculptures consist of two lions and an eagle that were originally set up on one large pedestal. One of the two lions (Fig. 4) is recumbent, with its head turned to one side, and is intact but for the nose. The other is in a sitting posture; its forelegs and half its head are missing. The eagle is headless. The drawing, modelling, and details of the three figures are archaic, but do not resemble figures of the same type in Egyptian, Assyrian, or early Greek

art. One may conclude, therefore, that they are a new type which would naturally be called Lydian. Other fragments of sculpture and some interesting details of architectural ornament, including a corner acroterium from the temple roof, were found in the course of the excavations about the temple. Coins continued to come to light in great numbers as the excavations of the temple precinct advanced; these include a hoard of sixty tetradrachms of the Hellenistic period, in a



FIGURE 4. - MARBLE LION FOUND ON NORTH SIDE OF TEMPLE.

beautiful state of preservation, besides many single coins in silver and bronze of widely separate epochs and more or less well preserved.

An important discovery in the field of sculpture was made outside the main excavations near the road at the northern edge of the Roman city. This was a sarcophagus of the Sidamara type. It is in a badly broken condition, but the cover is almost complete, though in many pieces, and the fragments of the two ends and of the side that were sculptured will, when pieced together, form nearly three-quarters of these parts as they were originally. The figures reclining upon the couch

which forms the cover of the sarcophagus are those of two women, apparently mother and daughter; the head of the elder is perfect but for a slight break at the tip of the nose; the lower part of the face of the younger woman is broken away. One side and the ends of the sarcophagus itself are divided into panels, or niches, by twisted columns with flowing



FIGURE 5. - PANEL FROM ROMAN SARCOPHAGUS.

composite capitals. Each niche contains a figure (Fig. 5); the tops of the niches vary in form, having pointed or curved pediments or straight entablatures. The life-size figures of the cover are sculptures of good Roman type, like figure sculpture of the second century A.D.; those of the panels are curiously unequal in artistic quality, some of them resembling copies of

good Greek work, others giving the effect of very late, almost of Christian, sculpture. An inscription on the cover, giving the name KA·ANT·≷ABEINH≼, is carved in Greek letters which appear to be of the earlier period. The sarcophagus stood upon a high pedestal which, like a parotid, stood at one side of a flight of steps in front of a large mortuary chamber. The plan of this chamber, which is that of a triconchos, with its porch of four columns and broad, high parotids, will make an interesting publication in connection with the sarcophagus which formed a part of its decoration.

The finds in the tombs of the old necropolis were, without question, the most important yet made in our tomb excavations at Sardes. Several hundred pieces of pottery were found, including a large number of specimens of Lydian ware of the sixth century B.C. and earlier. These last were discovered in tombs that had been crushed in soon after they were made. Most of the pieces were in fragments, but a considerable number are whole, and the collection presents great variety in shapes, clays, colors, and decorations.

An ivory head of extremely archaic type was found, and a small number of masks and figurines of the archaic and later Bronze mirrors, some of them with ivory handles, were numerous in the tombs, as usual, with other objects of the same material, such as a complete yard scale, vases, and dishes of various shapes. A number of gold necklaces of unusual beauty of detail were found, together with small gold ornaments, and rings, some with archaic seals cut in the gold, others with scarabs of carnelian cut with seal designs in the style which is now believed to have been of purely Lydian origin, and all in most perfect technique. Individual seals of conoid shapes, usually with gold or silver mountings, and having the characteristic devices, continued to come to light, and we may say that practically every one of them is a gem of the first quality, so far as technique is concerned; though they differ in elaborateness of detail as in interest of subject. The most interesting group of gold objects found this season, from the point of view of art history, was a set of placques and rosettes of repoussé work, all found in a single tomb and as part of one burial. There are six larger placques, each bearing two sitting human-headed lions, with beards and wings, facing each other, and surmounted by a winged disc of Egyptian style, all framed in bands adorned with rosettes and crested with battlements very Assyrian in type. The nine smaller placques have no frames; each consists of a sphinx in a walking pose. The placques have small holes for the rivets, by means of which they were affixed to a textile fabric or to leather. The rosettes are over forty in number, and are made like buttons with shanks at the back. The whole series is executed with the highest refinement of goldsmith's work, which appears to even better advantage under a magnifying glass.

To this brief résumé of the year's finds should be added mention of a tunnel-vaulted tomb of the Christian period which was excavated out in the plain. This tomb was entered through a trap door in the roof, and had been rifled. The wall paintings, which were well preserved, present well-executed designs of peacocks and smaller birds, and flowers and baskets of fruit, in several brilliant colors.

HOWARD CROSBY BUTLER.

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Archaeological Institute of America

A CYLIX IN THE STYLE OF BRYGUS.

The city of Philadelphia contains a considerable number of classical antiquities. Some of these, acquired years ago, are still in private possession, others belong to educational institutions; but comparatively few of them are known to students of archaeology living at a distance, though several are of considerable archaeological interest. Such is the case with the vase here discussed. It is a cylix of severe red-figured style which once belonged to the Canino collection, and was probably found at Vulci. Later it passed into the possession of Mr. James Jackson Jarves of Florence, and then into the collection of Mr. Robert Coleman of Philadelphia. When this collection was sold in 1896, the vase was purchased by the Museum of the University of Pennsylvania, where it is now exhibited.

It is a medium-sized cylix, 23.5 cm. in diameter, and 9.5 cm. high, with a foot having a diameter of 9.8 cm. On the interior (Fig. 1) is a nude youth of rather heavy build advancing to the right. In his right hand he carries a long, knotted stick, while over his left arm, which is extended, he carries a himation with black border. The garment passes over his left arm and shoulder and flies out behind. He wears low shoes fastened by a thong, of a not uncommon type, but is otherwise nude. His head is turned so that the face is seen in full front. has a good-natured smile, which is perhaps to be explained by his rather tipsy gait. The hair, as in all the heads on the vase, is drawn in little round bunches or curls on top of the head, and comes down over the forehead in short, straight lines. the right arm, chest, and right leg the artist has indicated the muscles by means of diluted glaze. The drawing is good, and the whole figure full of life.

A band of meander surrounds the design. It was begun by the artist just above the elbow of the figure, but his space was

not correctly estimated, so that the two ends do not quite meet. It is not a running pattern, but each rectangle stands by itself, one starting from the outer edge of the band and the next from the inner, and so on, alternating. The handles, as is often the case, are not in the same axis as the interior medallion.

On the under side are two scenes of three figures each, representing a $\kappa \hat{\omega} \mu o s$ or revel. On side A (Fig. 2) at the left is a



FIGURE 1. — CYLIX IN PHILADELPHIA. INTERIOR.

nude youth, with castanets in each hand, engaged in a violent dance. He is standing on his left leg, while his right is drawn up; his body is bent forward and his head turned back, while his open mouth shows that he is singing at the top of his voice. From his left wrist dangles a $\sigma v \beta \dot{\eta} v \eta$, or flute-case. The eye is narrow, but not quite shown in profile. The abdominal



muscles, as well as those of the legs and right arm, are indicated by diluted glaze. Behind him, stuck in the ground, is a knotted stick.

In front of this youth is another, facing to the right. He

wears, thrown over both shoulders and hanging down behind, a himation with a border. In his left hand, pressed against his side, he holds a lyre of the type believed by some authorities to be the $\beta\acute{a}\rho\beta\iota\tau\sigma$, or $\beta\acute{a}\rho\beta\iota\tau\sigma\nu$, which he is playing with a plectrum held in his right hand. With the extended fingers of his left hand he regulates the length of the strings, six in number, which the artist has represented by raised black lines, so that they are visible over the black background and across the opening in the sounding board of the instrument. He leans backward and his head is thrown back, while his open mouth shows that he is singing. Here the eye is very nearly correctly drawn. The artist has used diluted glaze to bring out details on the throat, legs, and arms.

The third figure is also turned to the right, but is looking back at his two companions. He is nude, but has a himation hanging over his extended left arm and floating out behind. In his left hand he holds a scyphus; and in his right, which is drawn back, a knotted stick. He is dancing violently and singing at the same time. Here again the artist has tried to draw the eye in profile, and has again made use of diluted glaze to indicate the muscles of the body and right leg.

On the heads of the figures are indications of fillets, probably originally put on in red paint which has now disappeared.

On the other side B (Fig. 3) is another revel; or perhaps another part of the one just described, but the dancing is less violent. At the left is a nude youth, who leans far back as he dances. His body is turned to the right, but his face is seen in full front. His left arm is extended, and in his left hand he grasps his himation, part of which covers the arm and shoulder and flies out behind, while the rest falls below his hand. In his right hand he holds a knotted stick. The drawing of the

¹ Winckelmann, Gerhard, and others argued that this was the βάρβιτοs or βάρβιτον: first, because it is known from literary sources that the βάρβιτοs was used to accompany drinking songs, and in scenes of revel depicted on vases an instrument of this shape is frequently found; and second, because it was used in Lesbos, especially by Sappho, and upon a vase in Munich, Sappho and Alcaeus are depicted playing upon instruments of this shape. But in Theocritus, XVI, 45, the βάρβιτοs is called πολόχορδοs, an adjective more appropriate to the harp. Hence the correct name of a lyre of this type must be regarded as uncertain.



drapery over the left shoulder, the abdomen, the right elbow, and the tip of the stick has been slightly injured.

In front of this youth is a bearded man, also nude. He, too, is turned to the right and has a himation with a border wrapped

about his left arm, and then carried over his left shoulder and down his back. He is bending forward as he dances, and in either hand holds a flute. The one in his left hand has four holes indicated on the side, which was the regular number in the left of a pair of double flutes. The eye is narrow and not correctly drawn. The muscles of the lower legs are added in diluted glaze, as is the hair upon the man's chest.

A break in the vase has unfortunately destroyed the greater part of the third figure, but the position of the legs shows that this, too, was a dancing figure who held the $\sigma \nu \beta \dot{\eta} \nu \eta$ in his extended right hand. The restoration proposed by the Italian who completed the vase is probably approximately correct, although the himation is made too small, and there is no means of knowing whether or not the left hand held a scyphus. On the left leg the knee-cap and the leg muscles are added in diluted glaze.

Below the figures is a black band 2 mm. wide, with a band in the natural color of the clay of equal width above and below it. There are no palmettes or other decorations beneath the handles.

One is struck at once with the liveliness of these scenes, with the spirit which the artist puts into the individual figures. At the same time there is nothing careless in the work but, on the contrary, much delicacy is shown in the drawing; (as, for example, in the toes and fingers), which is not well shown in the reproductions. There are indications that the artist made several sketches with a dry point before he got the figures placed as he wished them. Such lines may be seen on the youth with the lyre in Figure 2; and on the legs and breast of the figure at the left, and on the legs of the figure at the right in Figure 3. The composition, the animation of the figures, and the vigor of the drawing point to an artist of ability, but unfortunately the vase is not signed. On the under side of the handles are four marks which may possibly once have been intended for the letters of a signature, but after the vase was fired became indistinguishable blotches. The single figure on the interior is clearly a reminiscence of the single running figures of the painters of the cycle of Epictetus, of Pamphaeus, Chachrylion, and the others; but the heads en face, and particularly the eyes in profile, show that the vase cannot date very far back in the fifth century. It can hardly be earlier than 470 B.C., perhaps not quite so early.

The question now to be determined is whether this vase bears sufficient resemblance in style to any body of signed vases to permit its connection with a known master. The chief characteristic of the scenes on the under side, as has been pointed out, is the life which the painter has put into them. Both groups of revelers are singing and dancing with great spirit. Now liveliness of action is especially noticeable on the vases which bear the name of Brygus; and if this vase is examined with care, it will be seen that it has other peculiarities which are acknowledged to be characteristic of this master. It should, however, be remembered that the nine vases which bear the name of Brygus, as well as the handle in Boston, are all signed with $\pi o i \epsilon \omega$, not $\gamma \rho \dot{\alpha} \phi \omega$, and it is possible that this may be the name of the potter and not of the artist. At the same time these vases were clearly all painted by the same man; and if it is granted that the signature was written by the painter, it may well be that by $\epsilon \pi o i \eta \sigma \epsilon \nu$ he wished to indicate that he made the whole vase, including the painted decoration. At least we are justified in assuming such to be the case until the contrary is proved.

Hartwig, in his book on the cylices of this period, has noted thirty-eight peculiarities of the work of Brygus; and these have been examined in detail by Tonks, who reduces the number to ten. The others he finds also on vases of other masters. As a facial characteristic he calls attention to the "intense expression due to the delicate nostril, and the drooping corners of the mouth." These peculiarities are noticeable in the profiles of the cylix in Philadelphia. Difference in facial expression, figures with the body tilted backwards, or with the

¹ Meisterschalen, pp. 307 ff.

² Memoirs of the American Academy of Arts and Sciences, XIII, pp. 65–119. Cf. also Rayet et Collignon, Histoire de la céramique grecque, pp. 187 ff., especially pp. 194, 195, and 198; C. Robert in Pauly-Wissowa, Real-Encyclopädie, s.v. Brygos; F. B. Tarbell, 'A Cantharus from the factory of Brygos,' in The Decennial Publications of the University of Chicago, pp. 4 ff.; Furtwängler und Reichhold, Die griechische Vasenmalerei, Serie I, Text, pp. 121 ff., 242; Serie II, pp. 21, 123 ff.

head thrown back, have elsewhere been pointed out as characteristics of Brygus; also the fact that the eye is sometimes drawn nearly in profile, and that hair is represented on the bodies of men in diluted glaze. All of these appear on the vase which we are discussing. Compare, for example, the faces in Figure 2; the positions of the second and third figures in the same group, and of the first and third in Figure 3; the eyes of the second and third figures in Figure 2; and the hair on the body of the bearded man. Two of the heads are seen in full front, which is not common on vases of the severe red-figured period. Where they do occur they seem to have some special purpose. Here they add variety. On a cylix formerly in the Van Branteghem collection in Brussels and attributed by Hartwig 2 to Brygus, two bearded men are so drawn, one on the interior and the other on the outside of the vase.

The type of lyre with the arms curving in at the top is found on the vases of several masters, including Brygus. It must have had seven strings, although the painter of our vase has given it but six. On a cylix in Paris attributed to Brygus by Hartwig,³ it is twice represented with six strings. This is, however, a small indication, and of no great weight, because on a vase attributed to Hiero ⁴ we find it again with six strings. But more important than this is the subject. Scenes of revelry are extremely common on vases assigned to Brygus, appearing on one of the signed vases, and on twenty of the sixty-two unsigned vases attributed to him described by Tonks.

If, therefore, we take into consideration the many points which the vase in Philadelphia has in common with those of Brygus, the subject, the animated scenes, and the various details which have been pointed out, we shall be justified in assigning it to his school, if not to his own hand.

WILLIAM N. BATES.

University of Pennsylvania.

¹ See Deonna, R. Arch. XV, 1910, pp. 233 ff.

² Op. cit. pp. 331 ff, figs. 44 a and 44 b.

³ Op. cit. pls. XXXII and XXXIII.

⁴ Hartwig, op. cit. p. 297, fig. 41 a.

Archaeological Institute of America

WHO BUILT THE ARCH OF CONSTANTINE?

II

THE FRIEZE

BEFORE continuing the detailed examination of the sculptured decoration in its relation to the structure of the arch, which was barely begun in my first paper (A.J.A. XVI, 1912, 3, pp. 368 ff.), I shall give a brief report of the work done on the arch during the intervening year. In October, 1912, I presented to the International Archaeological Congress in Rome my theory that the arch was built by Domitian, mutilated at his death, restored and used as a general arch of triumph until rededicated to Constantine. Thanks to the cordial and efficient coöperation of Comm. Corrado Ricci, it was possible to prepare in the course of only four days special casts and photographs for the Congress. But as they illustrated only the lower parts it seemed afterwards indispensable to test my theories by a close examination of every foot of the surface up to the top of the attic by means of scaffolds. Only by this searching study could the many puzzles be solved. Comm. Ricci granted his permission, and the Office for the Preservation of Monuments placed its corps of expert scaffold builders at my disposal for several weeks in April and May, 1913. A several-storied movable tower on wheels made it possible to return again and again to the same detail. Above it permanent platforms were built on the attic. No part of the surface was left unexamined or untouched. Even the thickness of the slabs was ascertained wherever there were cracks or holes allowing the insertion of a slender steel rod. Casts and photographs were taken of details that bore upon the problems under discussion. experienced archaeological architect, G. Malgherini, took the measurements and profiles for a detailed series of architectural

drawings; finding, incidentally, that what had thus far been published was most inaccurate. An expert examination was begun of the marble used in various parts, in order to ascertain any differences in quarry and quality. Archaeologists and art critics were freely invited to take part in the examination and to test my theories and statements.

The arch has, therefore, been for the first time studied with the care and closeness that it deserves. It was inevitable that new problems should arise in the course of this study, and yet, while I found occasion to modify some of my opinions and to make some reservations, it has not brought any fundamental change in my views. I have gathered a greater wealth of detail to prove the pre-Constantinian origin, and even the pre-Constantinian date (third century) of that latest addition to the structure, the attic. The materials have been gathered for a special volume; what will be used in these articles is only the part that bears on the problems of structure and age.

In regard to the contention in my previous article (p. 375), that it would have been against Roman law and custom to have built an arch to Constantine for victories in a civil war, the force of my argument was impaired by a printer's error which made me say that Ammianus Marcellinus condemned Constantine for erecting arches in Gaul to commemorate internecine victories. What I actually wrote, of course, was not Constantine, but *Constantius*, his son, and if the contemporary historian condemned Constantius for such an improper innovation, it is unthinkable that he should have done so with a new arch of Constantine of this very character before his eyes.

In my previous article I examined only the two late medallions on the east and west ends. I shall now examine the frieze.

The frieze is not continuous, as in the arch at Beneventum, but is in sections, as in the arch of Septimius Severus. Though it extends around the entire arch it has no unity either in height or style. There are six sections: one over each of the

¹ I found no travertine core (p. 381); everything within sight or touch is marble of various qualities up to the attic, where the structure is later and changes to brick and concrete. This does not, however, exclude the possibility of the use of travertine in the mass of the masonry, but it cannot be proved.

minor arcades on each face and one across each end. Those on the east and west ends belong to a triumphal procession, with an emperor entering Rome, and they overlap around the four corners on to the main faces as far as the first pilasters. The two sections on the south face represent victories leading up to the triumph; those on the north face give the popular festivities in Rome after the triumphal entrance. The universally accepted theory has been that all the parts of the frieze date from Constantine's time. The two scenes on the south are interpreted as the Capture of Verona (or of Susa), on his way to Rome, and as the defeat of Maxentius at the Milvian bridge. The north scenes are then his proclamation to the people from the Rostra in the Roman Forum and his distribution of the Congiarium after his triumphal entrance.

A dissenting voice has been raised by Mr. Wace 1 in a very interesting paper. Largely on the basis of the substitution of a second imperial head for the first one in three out of the six reliefs and also of the fact that Constantine did not celebrate a triumph, he ascribes the four sections of the triumphal procession, the Rostra proclamation and the Congiarium, to the next previous emperor who enjoyed a triumph; that is, to Diocletian. He leaves to Constantine only the two south scenes: the capture of Verona and the Battle of the Milvian bridge, because here he finds that there is no substitution of a second imperial head. He thinks that the four Diocletianic reliefs were removed from some triumphal monument of that emperor and finds substantiation of this in the breaks that run continuously along the base line of the reliefs, detaching them from the structure of the arch. I do not know how much attention has been paid to Mr. Wace's theory. I found myself obliged to discard it as more than improbable. The same break which runs along the base line of the reliefs he thinks Diocletianic runs also along the base line of those he thinks Constantinian. In the Battle of the Milvian bridge, where he does not believe the emperor to have been present at all, there are not only remains of the emperor's figure, but proofs of the substitution of a second imperial head; which, according to

 $^{^1}$ A. J. B. Wace, 'Studies in Roman Historical Reliefs' in the *Papers Brit. School at Rome*, IV, p. 270 sqq.

Mr. Wace's own theory, would be fatal to an ascription of this scene to Constantine. This one fact is sufficient to make his theory untenable. It has also against it facts of style and technique. He grouped the Congiarium and Rostra scenes, which are of one style, with the Triumphal Processions which are of quite different technique; whereas the two battle scenes, which he places by themselves, are undoubtedly by the same hands as the Triumph! Nor does it seem at all probable that Constantine should have allowed the mutilation of a monument built only ten or twelve years before in honor of Diocletian.

We may then conclude: (1) that no part of the frieze came from a monument of Diocletian, and (2) that, since both the basal break and the mutilation of the emperor's head are characteristic of all the reliefs on the main fronts, they must all have been treated in this way at the same time.

What must be asked is this: Is the mutilation of the emperor's heads sufficient to exclude the Constantinian origin of all these frieze reliefs? Does the break along the base line show that they were brought from some other monument; or does it show, on the contrary, that they were carved in situ and that the decorative work underneath the break was added? Does not the evident stylistic difference between the Congiarium and Rostra scenes and the rest show that these two scenes belong to a different period and to another emperor than the triumphal and battle scenes? If all the scenes are pre-Constantinian and attributable to more than one emperor, does their technique afford any indication of their date?

These questions will be answered in the course of an examination of each relief, beginning with the scenes preceding the triumph.

I. South Face. (a) Siege of Verona (Fig. 1). The effect of the base-line cut just under the feet and cutting away the base on which they rested, though far riskier, was but little more damaging than in the Battle of the Milvian bridge; which is remarkable, seeing that there were so many feet almost or entirely in the round. Only one figure lost its feet: the soldier advancing alone to the right under the city walls. The reason for his mutilation would seem to be that the block immediately beneath him took an upward curve instead of

following in a straight line parallel with the left-hand and central cornice blocks. This involved a miscalculation, and the necessity of cutting away the feet of the only figure in the lower part of this block in order to secure, according to which theory one adopts, the insertion either of the frieze block or that of the spandrel block. It will be noted that an attempt was made to conceal the shortening of the legs by thinning them off in a very clumsy way.

There are two details which bear on the question as to whether this section was inserted or was carved in situ: these details are the bow of the middle archer and the lance of the soldier below him. This middle archer was carved on two slabs of the upper course. His left arm is extended so that it is mostly on the righthand slab, holding the bow, of which the top remains against the frame. The right arm, holding arrow and string, with its forearm in the round, was, with bow and arrow, partly on one and partly on the other slab. It would have been impossible to move these slabs after carving. The damage to these delicate details which we see at present was presumably done not in ancient but in mediaeval times. Still, as it might be argued that



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FIGURE 1. — ARCH OF CONSTANTINE; SOUTH FACE; SIEGE OF VERONA.

it could have been done by transportation, it is lucky that the soldier below the archer, who is carved both on the upper and lower courses, is holding a lance whose delicate shaft is cut in the round against the upper slab and connects closely and perfectly with the continuation of the shaft on the lower Here at least the perfect preservation of this detail in unrestored condition is enough to prove that the slabs were all carved in situ, and that the damage to the archer's bow was not due to transportation. The head of the emperor, who stands to the left, with a flying Victory behind him, has not been treated as in the other cases to be studied. It is mutilated, but there was no provision for a substitution in ancient times of a second head. It is extremely difficult to decide what this difference means. Does it mean that this section does not belong to the same time and refer to the same emperor as the east and west sections? If the head was that of Constantine, must we not infer that the mutilation was accidental? But how can the accident theory seem plausible in the face of the fact that every other head in the composition is intact? It is easier to suppose that the head was made unrecognizable and that it was by mere carelessness that no second head was substituted. This supposition will be confirmed by the examination of the emperor's figure in the corresponding scene of the Victory of the Milvian bridge, as the two scenes certainly belong to the same series.

Of course this theory would exclude the title "Siege of Verona" as the subject of the relief.

SOUTH FACE. (b) Battle of the Milvian Bridge (Fig. 2). This scene is more seriously damaged than any of the series, especially where the emperor stood. The photograph reproduced in Figure 3 was taken for the purpose of showing the line of cleavage along the base, which is continuous, and just as clearly as in the other cases posterior to the carving. The peculiar thing about the emperor in this scene is that he has totally disappeared and that "his place knows him no more." He stood between the Virtus who advances to the right over the arch and the river god, and the winged Victory beyond, whose head is turned backward as she leads the emperor onward. Of the emperor himself who occupied the vacant

space between Virtus and Victory, there remain only the two feet and the outline of some drapery against the background below the place where the knees were. Also, the fractures show where the outlines of the figure were. Especially conclusive is the cavity made where the head was, showing the intention, at least, of substituting a second head. It is curious that nobody appears to have noticed these facts. They either think, as Mr. Wace does, that the emperor was not present or else they see him in one of the soldiers in front of Victory. That the emperor was actually represented and that his head was hammered away as in the Triumph, the Congiarium, and the Rostra scenes, completes the upsetting of Mr. Wace's hypothesis.

In both of these scenes, while the figures are heavy and clumsy, there is considerable action, energy, and some expression. This is particularly true of the archers, of some of the horsemen, and of the Virtus. The marking of the pupils of the eyes is one of the technical points of difference between these reliefs and those of the north face, where the eyeballs are smooth, and there is no attempt, as here, at expression.



FIGURE 2. — ARCH OF CONSTANTINE; SOUTH FACE; BATTLE OF THE MILVIAN BRIDGE.

A good argument against the supposition that these scenes might have been brought from another monument is that they are so composed as not to have fitted any position but one of exactly their present length. One can imagine all the other four sections of the frieze as longer or shorter without fundamental disturbance, but the Milvian bridge scene in particular cannot be imagined as changed by addition or subtraction. It was designed for its present place, without a doubt. If it is pre-Constantinian, then the arch is also pre-Constantinian. I



FIGURE 3. - DETAIL OF FIGURE 2.

keep on using the term "Battle of the Milvian Bridge," though if the scene is pre-Constantinian, some other battle at a river must be selected as the theme.

II. East Frieze. Triumphal Entrance of the Emperor, preceded by the Army (Fig. 4). No continuous cornice frames the top; there is only a cornice strip under the medallion and connected with it. The cornice that serves as a base to the frieze is an important factor. Its lines, where they are preserved, are straight; its curved surface is even and of good outline. This is in strong contrast to the corresponding cornices on the main faces, and shows an earlier date. The cornice is cut in the same blocks that form the lower half of the figures

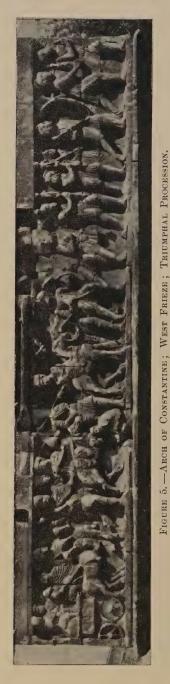
of the frieze. It will be noticed that this argues in favor of the theory that this eastern section of the frieze was carved in situ. other arguments for the same theory are: that the frieze is cut in two normal courses of marble blocks, of the same average height as the rest of the building blocks of the arch; and that the figures are cut back instead of projecting in relief from the structural line. This latter argument I have already used as tending also to show that the frieze was not planned when the arch was built, as otherwise the blocks on which it was to be carved would have been set in projection, according to the common custom.

The next point is the head of the emperor, seated in the chariot to the extreme left. The head has disappeared; not only that, but the hollow in the neck shows that the original head had in ancient times been replaced by a second imperial head. Now a technical comparison shows absolute identity of style between this section of the frieze and the already examined two sections on the south face — the Capture of Verona and the Battle of the Milvian bridge. It would follow from this clear substitution of a second imperial head that the original work could not be Constantinian, and if this is true of the eastern frieze with



II

FIGURE 4. - ARCH OF CONSTANTINE; EAST FRIEZE; TRIUMPHAL ENTRANCE OF EMPEROR



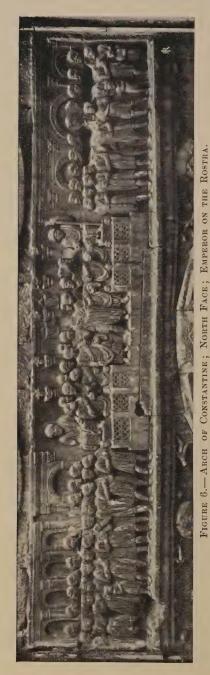
the emperor's triumphal entrance, then it is also true of the scenes on the south face and the west end. These scenes, therefore, cannot be incidents in the life of Constantine, but must be incidents in the life of whatever preceding emperor was commemorated in this east frieze. Perhaps the details will give some hint as to who this emperor was: the presence of camels and mules, the type of captured or carried standards, the costumes.

III. WEST FRIEZE. Triumphal Procession with Captives and Booty (Fig. 5). This face is in not nearly as good condition as the east face, apparently on account of the internal staircase at this end, which seems to have led both in ancient times and in the late Renaissance to considerable reconstruction, remodelling, and mutilation. This is shown in several ways: by the modern doorways, the irregular joints, the difference in the size, quality, and finish of certain blocks, such as those above the frieze on the right; the rough openings cut to give air and light to the staircase. This remodelling involved the insertion of antique fragments, especially a cornice block near the base of the staircase, which has been used as an argument for the Constantinian date of the arch, whereas it merely shows that the staircase was either built or remodelled at the time of the construction of the

attic, which was either under Constantine or in the latter half of the third century, if my theory is correct.

The ancient remodelling would seem to have been done when the frieze was carved, and in this case would antedate Constantine. A strong indication is in the arrangement of the base, which is entirely different from that of the east frieze. The base cornice is carved on the top of the course below the frieze instead of in the lower course of the frieze itself. The narrow band along the top of the frieze, which existed in the east frieze but was started so far back as to be inconspicuous, is here kept forward. The reason for this, however, is evident. It is that on the east end the figures are smaller and in two rows, superposed in rough perspective, so that the listel must recede in order not to overshadow the upper rear row of fig-This makes it the more noticeable that on the west frieze, where there is a single line of larger figures, the relief is much lower and the listel is flush with the face of the arch, that at the right end there is no listel at all. This is due to the fact that the two blocks in the course above this part of the frieze, which I have already noted as of a different finish (and which are probably of a finer-grained marble), are laid on a level below the rest of the course by four centimetres, just the width of this narrow band, so that in order to keep the figures of uniform size at this end it was necessary to carry them up to the full height of the slab.

At this point comes a significant observation. Two of the Roman legionaries in this section are carrying standards captured from the enemy. One is surmounted by a nude male figure; the other by a draped female figure. We might call them, for convenience, Heracles and Nike, as their type is classic. Now the heads of these delicate statuettes touch the lower edge of the structural block above the frieze. This bears conclusively on the question whether this frieze was carved in situ or was brought from some other monument and inserted in the masonry. Any architect will, I think, agree that if this block of the frieze had been already carved, it would have been impossible to use it in building the arch and to superimpose the block above it without fracturing these figurines. The same applies in a lesser degree to the crests of the four soldiers' hel-



mets. This would dispose of Mr. Wace's theory that the frieze was brought here from a monument of Diocletian. Against this theory as applied to the other frieze at the east end is the fact that the frieze is there cut in the same block as the base cornice which is an integral part of the structure and can hardly have been brought from elsewhere.

IV. NORTH FACE. (a) The Emperor on the Rostra, addressing the people (Fig. 6). The break along the base line, instead of being below the feet of the figures, as it is on the south face, cuts across their legs at the ankles or above them, both here and in the Congiarium scene. the centre the line of the cut is on a higher level through the base of the Rostra, along the entire length of the central block of the cornice below. Why is this so? The most plausible explanation seems to be that this was done in order to allow of more width for this cornice block which otherwise would have been so slender as to be easily broken in the centre. This explanation carries with it the assumption that this cornice block was inserted after the carving of the frieze,

and if this block, then the rest of the cornice and the spandrel sculptures. In support of this is the evident fact that the surface of the Rostra is carefully finished except only the part of it represented on this cornice block, where the surface is quite rough and done at a different and later time. same crudeness appears in the handling of the upper part of the other two cornice blocks on which the figures of the frieze stand. The feet of the figures, below the break, are not the original feet; that is so clear as not to require argument. Not a single foot is carefully finished, in the style of the rest of the figure. In some cases, especially on the extreme right, there is not even an attempt made to fashion any feet below the break. In fact the fracture in some cases is so far above the base of the ankle that to carve new feet would have meant attaching them almost to the base of the calf of the leg. About 15 per cent of the lower leg was cut away. In so far as the frieze itself is concerned, and its connection with the cornice, the balance of evidence is in favor of its carving in situ and its mutilation when the spandrel decoration was added. This question will be more fully studied in connection with the spandrels.

The head of the emperor, who stands in the centre, was hammered off, and both background and neck hollowed out to receive a second head, now lost, if we assume that it was ever actually put in place.

NORTH FACE. (b) The Imperial Congiarium (Fig. 7). The emperor, seated on a throne and surrounded by his court, is acclaimed by the populace, while the routine work of handing out the gifts is carried on in four offices on either side. The break runs across the base in a perfectly straight line. It is even more evident here than in the preceding scene that the lower part of the figures has been cut away. I had a special photograph (Fig. 8) taken with a slight downward tilt in order to show that all the figures lost their ankles or even more, and that only in a few cases was any attempt made to replace the lost feet, even in the crudest way. The injury to the legs in some cases included a break higher than necessary. The technique is the same as in the previous relief. There is no expression; the attempt at action is like the attitudinizing of



puppets in a punch and Judy show. The treatment of hair and eyes differs entirely from that of the south face. The art is far poorer; one would be tempted, stylistically, to call it post-Constantinian.

The head of the emperor has disappeared. As in the previous relief there have been two successive heads, the head last lost having been set in the cavities of neck and background which had been hammered out to a considerable depth.

The same relation to the spandrels and cornice obtains here as in the previous case.

Just a word about an insignificant part of the frieze, which seems always to have been passed over without remark, though it has an interesting bearing on the whole question: I mean the returns of the triumphal procession around the four corners of the main faces up to the pilasters. There is but little room, only for a horseman, a horseman and a footman, or a couple of foot soldiers; yet these short reliefs may help toward certain conclusions. They are cut in the same marble blocks as the beginning and end figures of the main line of triumphal procession, so they favor the theory that the processional scenes were carved in situ. Their base line is on the

same level as that of the big frieze of the north and south faces, but their upper line is on a considerably higher level, which, if continued along these faces, would have intersected the base of the medallion frames.

There is another suggestion. Had the designer of the arch planned to carve a frieze at this point when the arch was built, he would certainly have made the two courses in which it was to be carved of exactly the same height, so that the figures would correspond in size at all points. As we see, this was not done. The top of the second course over the minor arcades is



FIGURE 8. - DETAIL OF FIGURE 7.

on a lower level than that of the corresponding course beyond the framing pilasters near the corners, so that any one running his eye along the main face, can see at a glance that the cavalry and infantry in the returns at the corners, and belonging to the Triumph, reach a higher level. This is another argument against the theory that the frieze was cut when the arch was built, to supplement the projection argument, and favors the pre-Constantinian date for the structure.

If one takes the trouble to analyze the grouping of the three decorative elements above each minor arcade,—spandrels, frieze, and medallions,—what is the impression one receives? Is it not that the designer was hampered and cramped in some way? If he could have set the medallions at any point in the

structure, why did he set them so low that he was obliged to flatten the circle of their base most ungracefully in order to make room for the frieze? And if he was free to set the frieze where he chose, why did he crowd it down on the archway so closely as not to give himself the room to run the cornice on an even line back of the keystone? The arch of Severus shows the normal distance between archivolts and cornice. Once it is admitted that the medallions had been in place long before the carving of the frieze and spandrels, the puzzle explains itself.

What seem to be the results of this study of the six sections of frieze?

In five sections the emperor is present. In each case his head is mutilated; in one of these cases it was made unrecognizable and in the other four another imperial head was substituted. As the only remaining section is part of the triumphal procession and is in the same style, it cannot be separated from the rest. Therefore, whatever this mutilation of the emperor entails is entailed for all six sections.

What is this consequence? Unless we suppose the arch to have been mutilated in favor of some emperor subsequent to Constantine, which seems unlikely, the consequence is the following dilemma. Either the entire frieze was brought from other monuments, dedicated to other emperors, whose heads

¹ Did Constantius mutilate his father's arch?

For the sake of argument, and in order to exhaust every possible hypothesis, I would offer the suggestion, merely as a suggestion to be taken into consideration, that when the Emperor Constantius entered Rome in triumph in April, 357, he may have been guilty of mutilating his father's arch, and in some cases have substituted his own portrait for that of his father. Ammianus Marcellinus describes quite cynically this absurd travesty of the older triumphs, and possibly the emperor distributed a Congiarium and assembled the people in the Forum for a remission of taxes, after having entered in triumphal procession with imaginary captives and counterfeit booty. If it should be admitted that in order to commemorate this event certain scenes on the arch were made to apply to Constantius, then it would still be possible to connect Constantine with the "Siege of Verona" and the "Battle of the Milvian bridge" because the mutilated emperor in these scenes might then be Constantine.

Constantius remained only a month in Rome, however, leaving in May, and in view of his absolute indifference to the city both before and after this visit, and his unpopularity there, it seems hardly worth while to consider this suggestion at all seriously.

were removed or mutilated so as to use Constantine's head in their place; or else the frieze was carved *in situ* and the same process was employed.

The examination has shown that of these two alternatives the latter should be adopted because of proofs given in more than one relief that transportation of the finished reliefs without fracturing details that are still intact would have been impossible, and these proofs are supported by the improbability of securing from the spoils of other monuments appropriate scenes that would exactly fit the length of the places to be decorated, as well as by other minor arguments that need not be repeated.

If the entire frieze, then, was carved in situ, it was carved in pre-Constantinian times, as is proved by the mutilation and substitution of the imperial heads. Was it all carved at the same time? Were the original imperial heads all of the same predecessor of Constantine? We have found that a well-defined difference in style and technique separates the frieze into two groups. In one group are the battle-scenes on the south face, the two short ends, and the returns around the ends with the triumphal procession. In the second group are the Rostra and Congiarium scenes on the north face. The two groups, having been carved at quite different times, presumably refer to two different emperors, both of whose portraits were destroyed to be replaced by heads of Constantine.

It would be idle to speculate at present as to the identity of these two predecessors of Constantine, except that on stylistic grounds they can hardly antedate the middle of the third century. The important and fundamental fact is that the frieze, if these premises are correct, proves the existence of the arch before Constantine.

A. L. FROTHINGHAM.

PRINCETON, September, 1913.

CORRIGENDA AND ADDENDA TO INSCRIPTIONS FROM THE CYRENAICA

(A.J.A. XVII, 1913, pp. 157-200)

Pp. 161, 162. Instead of " $\theta \epsilon \eta$ is probably a mistake for $\theta \epsilon i \eta$," read " $\theta \epsilon \eta$ is for $\theta \epsilon i \eta$, ϵi being weakened to ϵ ; cf. Schwyzer-Meisterhans, Gram.~d.~att.~Ins., p. 44, 15."

P. 161. When I wrote that $\mathring{\eta}\lambda\epsilon\kappa \acute{a}\tau\eta$ is a mistake for $\mathring{\eta}\lambda\alpha\kappa \acute{a}\tau\eta$, I meant to say that the latter is the regular form. It is a case of phonetic weakening from a to ϵ after λ , or of vowel dissimilation, as I have said, p. 171. The same form occurs in Dieterich, Untersuchungen, p. 9 (cf. Mayser, op cit. p. 58, 1).

P. 162, No. 11, l. 10. $\tau \hat{\eta} s$ is perhaps not used for $\tau o \hat{v}$, but rather, as Professor Schwyzer writes me, may be correct, and contrasted with $\pi \delta \sigma \iota o s$ in the next line. $\dot{\epsilon} \kappa \epsilon \dot{\iota} \nu \eta s$, then, would be an awkward repetition of $\tau \hat{\eta} s$ $\mu \dot{\epsilon} \nu$.

P. 166, No. 23. Neυσσίς is not a new name, but the same as Neοσσίς (cf. Neοττίς in Pape, s.v., and νεοσσός).

P. 168, l. 6. Μυρτώσιος is the correct Cyrenaic form, the ω appearing in this word also in Ap. Rhod. II, 505. For Μύρτουσα read Μυρτῶσσα, and to references to Malten, Kyrene, pp. 205 ff., add pp. 56 ff.

P. 170, No. 35, 1. 6. Read $\epsilon \tau \hat{\omega} \nu$ for $\epsilon \tau \omega \nu$, and in Il. 9, 10 Professor Freiherr Hiller von Gaertringen has suggested to me that we read $\lambda \hat{\nu} \sigma \theta \iota o \nu$ (= $\lambda o (\sigma \theta \iota o \nu)$) for $\delta \hat{\nu} \sigma \theta \iota o \nu$. The use of ν for o ι occurs on p. 196, and is very common (cf. refs. there). But Δ certainly occurs on the stone. It is, however, probably a mistake for λ , since $\lambda o (\sigma \theta \iota o \nu)$ makes better sense. A stonecutter who could write $\pi a \hat{\iota} \delta \epsilon s$ $\gamma \epsilon \nu o (\mu a \nu)$ for $\pi a \hat{\iota} \delta a s$ $\epsilon \gamma \epsilon \nu o (\mu a \nu)$ could easily carve Δ for Λ .

P. 171. Perhaps $\pi a \hat{\imath} \delta \epsilon s$ is not a mistake for $\pi a \hat{\imath} \delta a s$, but the well-known use of the nominative for the accusative; and

δύσθιον, if correct, may be the regular Doric form (cf. θ ίος, θ ίασος, etc.).

P. 177, No. 45, for such names as Antonianus, cf. Thieling, Der Hellenismus in Kleinafrika, pp. 79 f., p. 146.

P. 178, No. 48. Read Κυρβασίας for Κυρβασιάς, as in text above.

P. 179, No. 50. Read 'Αριστοτέλεις.

P. 185. Professor Joseph Keil kindly writes that I should have transliterated No. 77. It reads:

ο]ὖκ ἤμη[ν καὶ ἐ]γεν(ό)μην ο]ὖκ [εἰ]μὶ κα[ὶ ο]ὖ μέλι μοι χαίρ]ετε [π]αρ(ο)δῖται

Cf. C.I.G. 6265, 6745, etc. The thought often occurs in Latin, non fui, non sum, non curo.

P. 189, No. 104, Il. 1, 2. Hiller von Gaertringen points out that I should have restored θεομαχούντων (a word which Theophanes uses of the iconoclastic emperors of Byzantium) rather than θεοσεβούντων. In l. 3 read ἐξάλιψον for ἐξαλῦψον, and γενεậ for γενεâ. For Jews in Africa, cf. Bouchier, Life and Letters in Roman Africa, pp. 92 ff.

P. 197. To references for οὐδεὶς ἀθάνατος add Littmann, Magie, Stuart, Gr. and Lat. Ins. in Syria (Exp. 1904–05, Div. III), A, 2, 1910, Nos. 29, 32, 104; A, 3, 1913, Nos. 281, 282, 374; and Revue Épigraphique, I, 1913, p. 152.

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A NEW INSCRIPTION FROM THE ACROPOLIS AT ATHENS¹

This inscription is recorded on a block of Pentelic marble. At the top stood originally a group in low relief which probably represented the goddess Athena crowning Nicon of Abydus in whose honor the decree was passed. Almost the entire upper part of this relief is broken away, but enough remains to indicate that the workmanship was of no mean order. On the right the feet of Nicon, turned towards Athena, and in the centre one foot and traces of the drapery of the goddess still remain. On the extreme left behind the goddess the space was probably filled by her shield. In its present condition the stone is 0.41 m. high, 0.365 m. wide at the bottom, tapering to 0.355 m. wide at the top, and 0.08 m. thick. The letters are carefully cut, 0.007 m. high, spaced 0.014 m. apart and arranged στοιχηδόν. Each line has twenty-six letters except line 9, which has only twenty-five. The stone was found on the Acropolis in a mediaeval wall, northeast of the Propylaea (wall marked 5 in plate 1, Cavvadias und Kawerau, Die Ausgrabung der Akropolis).

A photograph (Fig. 1), the text printed in capitals, and the text with restorations are given here in succession.

¹ I wish to express my great obligations to Mr. B. H. Hill, Director of the American School of Classical Studies at Athens. This inscription is now published in *I.G.* II, i². as number 493. *I.G.* II, 194 is correctly published in the new edition and may be found under number 398. I regret that Kirchner's new edition of the *I.G.* II and III came into my possession too late to allow me to make my references to inscriptions in accord with the new numbering throughout this article.

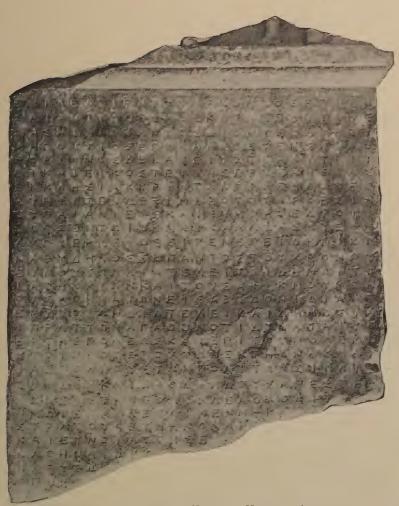


FIGURE 1. — DECREE IN HONOR OF NICON OF ABYDUS.

TEXT

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EΓΙΛΕΩ≤ΤΡΑΤΟΥΑΡΧΟΝΤΟ≤ΕΓΙΤΗ $IA \leq HI\Delta IO \Phi ANTO \leq \Delta IONY \leq O\Delta \Omega POY$ Φ H Γ O Y ≷ I O ≷ E Γ P A M M A T E Y E N ≷ K Φ O P I Ω N O ≷ Δ E K A T E I Y ≷ T E P A I T IKAIEIKO STEITH S P Y TANE ΕΚΚΛΗ ≤ ΙΑΚΥΡΙΑΤΩΝΓΡΟΕΔΡΩΝ E Y H Φ I I E N Δ E Ŧ I M B P O T O ₹ A P K E ₹ OY TAIANIEY < KAI < Y M T P O E A P O $E \triangle O E E N T \Omega I \triangle H M \Omega I K A A A I A <math>\leq$ A Y \leq A X O Y E P M E I O ≤ E I Γ E N E Γ E I Δ H N I N A B Y A H N O \leq E K Γ A N T O \leq T O Y X P O N O Y $EYNOY \leq \Omega N\Delta IATEA EIT \Omega I \Delta H M \Omega I$ $IA \odot HNA I\Omega NKA ITO Y \leq A \Phi IKNOYM$ $OY \leq A \odot HNAI\OmegaNEI \leq ABY\DeltaONI\DeltaIA$ 15 T E E Y Γ O I Ω N Δ I A T E Λ E I K A I Δ H M O ₹ ΙΓΡΑΤΤΩΝΑΓΑΘΟΝΟΤΙΔΥΝΑΤΑΙ ΕΡΤΗ≤ΓΟΛΕΩ≤ΚΑΙΕΓΙΤΟΥΓΟΛΕ Y T O Y Γ P O T E P O Y T Ω N E K T H ≤ N A Y M $IA \leq \Gamma O \Lambda \Lambda O Y \leq T \Omega N \Gamma O \Lambda I T \Omega N \leq Y N \Delta$ 20 $\leq \Omega$ | \leq E N K A | E ϕ O Δ | A Δ O Y \leq A Γ E \leq T Λ E N E I ≷ T H N Γ O Λ I N Δ E Δ O X ⊙ A I T HMΩ I E PAINE ≤ AIMENNIKΩN'' ₹ T P A T O Y A B Y Δ H N O N A P Γ KAIEYNO IA STHSEI/ NAOHNAI QNVA $NXPY \leq \Omega I$ O Γ Ω ≥ A

TEXT WITH RESTORATIONS

$[\Theta \epsilon]o[i]$

Έπὶ Λεωστράτου ἄρχοντος ἐπὶ τῆς Αἰαντίδος δωδεκάτης πρυτανείας ή Διόφαντος Διονυσοδώρου Φηγούσιος έγραμμάτευεν Σκιρο-5 φοριώνος δεκάτει ύστέρα τρίτει καὶ εἰκοστεῖ τῆς πρυτανείας . έκκλησία κυρία των προέδρων έπεψήφιζεν Δεξίμβροτος 'Αρκεσίλου Παιανιεύς καὶ συμπρόεδροι. 10 έδοξεν τῷ δήμω Καλλίας Λυσιμάχου Έρμειος εἶπεν · ἐπειδὴ Νίκων 'Αβυδηνὸς έκ παντὸς τοῦ χρόνου εὖνους ὧν διατελεῖ τῷ δήμῳ τῶι 'Αθηναίων καὶ τοὺς ἀφικνουμέν-15 ους 'Αθηναίων είς "Αβυδον ιδία τε εὖ ποιῶν διατελεῖ καὶ δημοσίαι πράττων άγαθον ο τι δύναται ύπέρ της πόλεως καὶ ἐπὶ τοῦ πολέμου τοῦ προτέρου τῶν ἐκ τῆς ναυμαχ-20 ίας πολλούς τῶν πολιτῶν συνδιέσωισεν καὶ ἐφόδια δοὺς ἀπέστειλεν είς την πόλιν · δεδόχθαι τ [φ δήμω ἐπαινέσαι μὲν Νίκων [α Νικο-(?)] στράτου 'Αβυδηνον άρ [ετης ενεκα] 25 καὶ εὐνοίας τῆς εἰ[ς τὸν δῆμον τὸ-] ν 'Αθηναίων [καὶ στεφανῶσαι αὐτὸ-] ν χρυσω[ι στεφάνω κατά τὸ(ν) νόμον] όπως ἄ[ν ἄπαντες εἰδῶσι ὅτι ὁ δῆ-] Γμος δ 'Αθηναίων αποδιδωσιν χάρι-30 τας άξίας των εὐεργετημάτων κτλ.]

- L. 1. Leostratus was archon in 303/2 B.C. Of this year there are several decrees preserved, and one of these, I. G. II, 262, was passed on the same day as this. There is, however, a marked difference in workmanship in the two stones. The other is cut on Hymettus marble in letters of very inferior style. The strokes are irregular and carelessly joined, and it is clear that the official who gave out the contract for these inscriptions did not employ the same stonecutter for both stones.
- L. 3. The father of the secretary, Dionysodorus of Phegae, is well known as a prominent citizen of Athens. In an inventory of the treasures of Hera at Samos he is συμπρόεδρος for the year 346/5 (Michel, Recueil d'Inscriptions Grecques, No. 832) and he is recorded in a list of diaitetai at Athens in 325 B.C. (I.G. II, 943, Col. 1, line 21). It is to be noted that the tribe of the secretary for 303 2 B.C. is Erechtheis and not Demetrias, as we should have expected if the official order were followed. The probable explanation is found in the political disturbances of this period. In 304 B.C. Demetrius, at the command of his father, abandoned the siege of Rhodes to come to the rescue of Athens, which was hard pressed by Cassander. It was doubtless to commemorate his victorious entry that the secretaryship in 304/3 was given to the tribe Antigonis. But when the elections were held in the following year, Demetrius was absent in the Peloponnese, and for a time the democratic party under Demochares gained control of affairs at home. They so managed the elections that the tribe Demetrias, next in the official order, was passed over, and the secretaryship given to the following tribe, Erechtheis. But the oligarchical party was soon reinstated by the return of Demetrius, and Demochares was driven into exile. The new government, however, did not see fit to change the elections, and the secretaryship was allowed to remain in the hands of Diophantus. (Ferguson, The Priests of Asclepius, pp. 3 and 141 ff.)
- I. 8. From this inscription we are able to restore the father's name and deme of the *proedros* in *I. G.* II, 262. An Arcesilas of Paiania is recorded in a catalogue of *epimeletai* about the end of the third century (*I. G.* II, 952, l. 23), and he is probably a descendant of this Arcesilas.
 - L. 10. Callias, son of Lysimachus of Hermeius, is already

known from *I. G.* II, 5, 314 c, where he is recorded as the mover of a decree relating to the performance of the sacred rites in honor of Aphrodite Pandemus (cf. *B. C.H.* XXVII, p. 50).

L. 11. Nicon of Abydus is not otherwise known. He was probably a proxenus of Athens. The hatred of these two states in the early part of the century was such as to become proverbial (Dem. XXIII, 206, 'Aβυδηνοὺς μισαθηναιοτάτους). When this decree was passed, however, they were both under the control of Demetrius. What their relations were when the sea fight took place is uncertain. Abydus may have joined Athens in the struggle for liberty which followed the death of Alexander. If so, her efforts were fruitless, and she remained in the possession of his generals until the close of the century.

L. 18. The "later war" implied in the phrase πρότερος πόλεμος must be the recent τετραετής πόλεμος referred to by Ps. Plutarch (Lives of the Ten Orators, p. 1037 (Didot); Müller, Frag. Hist. Gr. II, 445 ff.) who quotes a decree in regard to the conferring of honors upon Demochares of Leuconoe as follows: "Αρχων Πυθάρατος, Λάχης Δημοχάρους Λευκονοεύς αἰτεῖ δωρεὰν τὴν βουλὴν καὶ τὸν δῆμον τὸν ᾿Αθηναίων Δημοχάρει Λάχητος Λευκονοεί εἰκόνα χαλκῆν ἐν ἀγορᾳ . . . εὐεργετηκότι τὸν δημον τάδε: πρεσβεύοντι καὶ γράφοντι καὶ πολιτευομένω, οἰκοδομην τειχων καὶ παρασκευην ὅπλων καὶ βελων καὶ μηχανημάτων καὶ ὀχυρωσαμένω τὴν πόλιν ἐπὶ τοῦ τετραετοῦς πολέμου καὶ εἰρήνην καὶ ἀνοχὰς καὶ συμμαχίαν ποιησαμένω πρὸς τοὺς Βοιωτούς. ανθ' ων εξέπεσεν ύπὸ των καταλυσάντων τὸν ὁῆμον. This "four years war "1 has been dated by Schubert (Hermes, X, pp. 111 ff.) in 307-304 B.C. It was carried on by Athens against Cassander after the admission of Demetrius Poliorcetes within the city in 307/6, and continued during the absence of the latter in Rhodes, apparently with little or no help from him, until he returned in 304 B.C. and compelled Cassander to raise the siege. This ended the war so far as Athens was concerned, and as our inscription is dated shortly after its close we must place the πρότερος πόλεμος before 307 B.C. Moreover, we know that in 311 B.C. peace was concluded between the warring

¹ Cf. Beloch, Gr. Gesch. III, 2, pp. 374 ff.; Niese, Griechische und Makedonische Staaten, I, p. 333; Ferguson, Klio, V, p. 174; Hellenistic Athens, pp. 112 ff.

generals Cassander, Ptolemy, Lysimachus, and Antigonus, by which the kingdom of Alexander was divided amongst them and freedom proclaimed to all the Greek states (Diodorus, XIX, 105). The latter part of the agreement was never carried out, but there was no violation of the truce, except for an occasional outbreak, until the seizure of Athens by Antigonus and Demetrius in 307 B.C. In this interval Athens could not be said to be at war, and accordingly we must refer the πρότερος πόλεμος to some period between the death of Alexander in 323 B.C. and the peace of 311 B.C. One other reference to the πρότερος πόλεμος is found in I.G. II, 413 (dated ca. 3021 by Wilhelm, Gött. Gelehrt. Anz. 1903, p. 793). In this decree Euxenides of Phaselis, a metic at Athens, is praised because he furnished twelve marines ἐν τῷ πολέμα τῷ πρότερον at his own expense, and voluntarily.

Two decrees passed in the year 302/1 B.C. describe naval engagements in the Έλληνικὸς πόλεμος which are to be referred to the so-called "Lamian war" (I.G. II, 270 (302/1), II, 271. Cf. also I.G. II, 5, 231 b (318/7), II, 5, 270; Dittenberger, S.I.G. I, 163; Wilhelm, Beiträge zur griechischen Inschriftenkunde, p. 59; Plut. Phocion, 23). In this Hellenic war Diodorus (XVIII, 15) informs us that there were at least two engagements by sea, but gives no indication as to locality except in a statement which is either hopelessly corrupt in the manuscript or inexplicable with our present geographical knowledge. He writes as follows: οὖτος δὲ (Clitus) ναυμαγήσας πρὸς 'Η ετίωνα 2 τον 'Αθηναίων ναύαρχον ενίκησε δυσί ναυμαχίαις, καί συγνας των πολεμίων νεων διέφθειρε περί τας καλουμένας Έχινάδας νήσους. The situation of these Echinadae Islands is unknown. Certainly they are not those near the coast of Acarnania,3 for it is highly improbable that the Athenians retreated thither after any of their defeats, and that the Athenian and Macedonian fleets should meet there in a contest for the supremacy of the seas is manifestly impossible. (On this passage

¹ More likely earlier than 302, for in that year the Greeks called the struggle for independence the Hellenic war (*I.G.* II, 270, 271; cf. II, 5, 231 b, line 44).

 $^{^2}$ The text of Diodorus should be emended here and we should read E $\dot{v}e\tau i\omega r\alpha$ Cf. I.G. II, 270.

³ Strabo, X, Ch. 458.

cf. Niese, Griechische und Makedonische Staaten, I, p. 207; Beloch, Gr. Gesch. III, 1, p. 76. The former believes that the Echinadae Islands should be placed in the Malic Gulf near the town of Echinus, while the latter attempts no explanation, believing the passage to be hopelessly corrupt.¹) It is certain that one of these two battles was fought near Amorgus (Jacoby, Marmor Parium, p. 21, Il. 9–10; Plutarch, Demet. 11; cf. Beloch, op. cit. III, 1, pp. 75–76), and this was undoubtedly the decisive engagement, since the Parian marble chronicles it alone.

The naval battle mentioned in the new inscription was evidently fought in the Hellespont, probably in the vicinity of Abydus. The Athenians were completely defeated and withdrew without attempting the rescue of their shipwrecked comrades. There is no record of such a battle in the annals of Athenian history, but if we identify the πρότερος πόλεμος with the Έλληνικὸς πόλεμος, we may assume that the naval engagement in the Hellespont is the first of the two recorded by Diodorus. There is another alternative. The Athenians may have been allies of Polyperchon in the naval battle near Chalcedon in 318 B.C., where his admiral Clitus was totally defeated (Diod. XVIII, 72; Polyaenus, IV, 6, 8). The chief difficulty with this lies in the fact that the battle was far distant from Abydus, and we have no evidence that Athenians took part as allies of Polyperchon. The evidence of I.G. II, 413 is also against this theory; for this decree was undoubtedly passed ca. 303/2 B.C., when Demetrius Poliorcetes was still in control at Athens. Any one who had rendered aid to Polyperchon—a bitter enemy of Demetrius—could not be given a public vote of thanks at this time. We must therefore identify the πρότερος πόλεμος with the Hellenic or Lamian war which was undertaken by Athens after the death of Alexander for the freedom of Greece. That this identification is correct is conclusively proved by I.G. II, 194, of which lines 3 ff. are thus restored by the editors of the Corpus:

^{3. [}διατε]λεί χρήσιμο[ς άν καὶ κοινεί

^{4.} καὶ ἰδ]ία τοῖς ἀφι[κνουμένοις — —

¹ Ferguson, Hellenistic Athens, p. 18, note 1.

- 5. —]a[s] εἰς τὴν ᾿Ασί[αν καὶ τοῖς στρ-
- 6. ατευ]ομένοις ' $A\theta ηνα [ίων — κα-$
- 7. $i \mu \dot{\alpha} \chi \eta$] $s \tau \dot{\eta} s \dot{\epsilon} \nu \dot{\epsilon} \lambda \eta [\sigma \pi \dot{\delta} \nu \tau \psi \gamma \epsilon \nu \delta \mu \epsilon \nu \delta \eta]$
- 8. ένης π]ολλοὺς δι[έ]σ[ωσε καὶ λυτρωσ-
- 9. άμενο]ς ἀπέστειλε[ν καὶ αἴτιος ἐγέν-
- 10. ετο τ]οῦ σωθηναι κτλ.

The editors explain line 7 as a reference to the battle between the Greeks and the Persians at the Granicus in 334 B.C. But the Granicus is not the Hellespont, nor sufficiently near it to be called by that name. Moreover, in this battle there could be no possible occasion to ransom Athenian citizens who were fighting on the side of Alexander. This restoration and explanation must be rejected and the following is offered in its place:

- 3. [διατε]λεί χρήσιμο[ς ὧν καὶ κοινεί
- 4. καὶ ἰδζία τοῖς ἀφιζκνουμένοις ᾿Αθ-
- 5. ηναίω ν είς την 'Ασί αν καὶ τοις στρ-
- 6. ατευ]ομένοις 'Αθηνα[ίων' της δὲ ναυ-
- 7. μαχία]ς της ἐν Ἑλλη[σπόντω γενομ-
- 8. ένης π]ολλοὺς δι $[έ]\sigma[\omegaι\sigmaεν$ καὶ έφόδ-
- 9. ια δοὺ]ς ἀπέστειλε[ν καὶ αἴτιος ἐγ-
- 10. $\epsilon v \epsilon \tau o \tau] o \hat{v} \sigma \omega \theta \hat{\eta} v \alpha \iota \kappa \tau \lambda$.

From this it is seen that the phrase $[\tau \hat{\eta} \hat{s} \delta \hat{\epsilon} vav\mu a \chi \hat{\iota} as]$ exactly fills the gap in lines 6-7. In line 5 the sixth letter is certainly Nu, and the traces of the fifth letter show that it is not the slanting bar of an Alpha but of a carelessly cut Omega. In line 8 the iota adscriptum must be written, as is shown by the reading in line 21 of the new inscription, and moreover no example of its omission in the aorist active of $\sigma \phi \zeta \omega$ is known in Attic inscriptions (Meisterhans, Grammatik der Attischen Inschriften, p. 181).

The date of I.G. II, 194 can be determined because of a striking resemblance in the forms of the letters to I.G. II, 229, especially in O. O, and O. which have certain peculiar irregularities common to both. The length of the line, spacing and size of letters are the same in each. Because of the mention of the $\dot{a}va\gamma\rho a\phi\epsilon\dot{v}s$ in the latter it is to be dated in 322–319 B.C., and the engagement in the Hellespont must be assigned to the Hellenic war. There can be no doubt that the sea battle

recorded in *I.G.* II, 194 is identical with that in which Nicon of Abydus rendered timely aid. The $\pi\rho\delta\tau\epsilon\rho\sigma$ s $\pi\delta\lambda\epsilon\mu\sigma$ s is thus placed before 319 B.C., and the last doubt of its identity with the Έλληνικὸς $\pi\delta\lambda\epsilon\mu\sigma$ s is removed.¹

The new inscription gives us a valuable clew to the strategy of the Hellenic war. There is now no doubt that the first of the two naval battles recorded by Diodorus was fought in the Hellespont with disastrous results to the Athenian fleet. The exact date cannot be determined, but apparently it was after the fighting at Lamia (cf. Jacoby, Marmor Parium, p. 21, 11. 9-10) and before the battle off Amorgus, which happened in the archonship of Cephisodorus (323/2). In the struggle for independence the most important consideration for Athens was the command of the sea. Then she could easily prevent the return of Macedonian troops to the aid of the small force left in Macedon by Alexander. No less important was the control of the grain route through the Hellespont, for Athens was at all times dependent for her grain supplies on this route from the Black Sea. At the beginning of this war, the Athenians apparently failed to realize the value of the supremacy of the sea at first, but gave all their attention to the land force, and this strategic error was probably the occasion for Diodorus' remark that they failed to act with sufficient foresight in the war (XVIII, 10). First of all Leosthenes was sent northward with a considerable force. The Macedonian troops under Antipater were met south of Lamia and defeated. They took refuge in the strong fortifications of Lamia, where Leosthenes was killed in one of the repeated attempts of the Athenians to storm the walls (Diod. XVIII, 13). Even after the first success on land, there is no record of any attempt to close the way for troops from Asia, for Leonnatus crossed over with a considerable force and, taking over some troops still remaining in Macedon, advanced to the relief of Lamia. The Greek army, which now consisted largely of Athenians and Thessalian cavalry, met him before he could

¹ This was called the "Hellenic" war until the régime of Demetrius of Phalerum. During his rule no mention is made of the war by any name in the inscriptions. It was known as the "Former" war in 303/2, but after the departure of Demetrius Poliorcetes, the Athenians resumed the old designation. Cf. I.G. II, 5, 231 b (318/7), II, 270, 271, II, 5, 270, II, 413.

unite with Antipater, and inflicted a severe defeat. Leonnatus himself was killed. On the following day Antipater marched out from Lamia, and taking over the command of the defeated army withdrew by routes inaccessible to cavalry, thus making good his escape (Diod. XVIII, 14). Apparently, if we can trust the account of Diodorus (XVIII, 15), it was only at this time that the Athenians realized the necessity of gaining command of the sea and preventing the passage of more troops from the Asiatic side. They equipped a fleet of 170 vessels which they sent to the Hellespont under the command of Evetion. Here they were met by the Macedonian fleet of 240 ships under Clitus, and joined battle in the Hellespont near Abydus, where it is probable that the Macedonian fleet had made their headquarters. We learn from the new inscription that the Athenians were so completely defeated that they fled without attempting to rescue the shipwrecked. This kindly service was performed in part by Nicon, who was probably an Athenian proxenus, and by some citizen of an unknown Asiatic city (I.G. II, 194), possibly also of Abydus. The Athenian fleet then retired to the Peiraeus, as we infer from I.G. II, 270 which reads as follows: καὶ ἐπὶ τοῦ Ἑλληνικοῦ πολέμου εἰς τὰς ναῦς [τὰς] μετ' Εὐε[τί]ωνος ἐκπλευσάσας εἴς τε τὴν πρώτη[ν ἐξέτ]ασιν καλώς καὶ φιλοτίμως συνεπεμελήθησ [αν ὅπως] αν ἐκπλεύσωσιν, καὶ πάλιν [ά]πὸ τῆς ναυμαχ [ίας κατα] πλευσασῶν τῶν νεῶν Here the damaged ships were repaired and reinforcements probably added. They were sent out a second time and met the enemy off Amorgus, where they suffered the final and crushing defeat which practically ended the naval history of Athens, for after this date the Athenians made no further attempt to gain the supremacy of the seas. It is now possible to make another conjecture as to the location of the Echinadae Islands. There is no such group of islands near Abydus, but there is a group of tiny islands lying between Amorgus and Naxos which might very well be known by this name, and in their vicinity the second naval battle was probably fought.2

The importance of the sea fight in the Hellespont cannot be

¹ It is possible that *I.G.* II, 5, 273 d and 512 c in honor of citizens of Abydus refer to services in connection with this battle.

² Cf. Ferguson, Hellenistic Athens, pp. 16 ff.

overestimated. It was late in the war — probably after Leonnatus had already crossed into Europe with his troops — that the Athenians realized the necessity of closing this important means of communication with the Asiatic forces which could so readily be drawn upon to reinforce the garrisons at home. If they had succeeded in closing the Hellespont for the passage of future reinforcements, the history of the Hellenic war might have been far different. As it was, the death of their best general, Leosthenes, at Lamia, and their overwhelming defeat at sea proved the turning point of the Athenian fortunes. a very short time Antipater was able to add to his own army, for Craterus now crossed over from Asia with 10,000 infantry, 1,000 Persian bowmen, and 1,500 cavalry. In the battle which followed, the Greeks were defeated, and all but the Athenians and Aetolians sent heralds asking for peace. This was granted them, and then Antipater proceeded immediately against the Athenians, who were now without allies and in narrow straits. Demades with Phocion and others were sent out as ambassadors. Peace was concluded on condition that the Athenians should submit themselves to Antipater. These terms were accepted, and the Greek struggle for independence was over (Diod. XVIII, 16-18).

The long delay of fully twenty years before the Athenian state recognized the services of Nicon is largely due to the politics of the period. Apparently the matter had not been brought up in the interval between the battle in 322 B.C. and the date of the beginning of Macedonian control, in 319. After this time it was of course impossible for the state to honor publicly the man who had rendered services to those who had fought against their present rulers. The first opportunity came in 307 B.C., with the advent of Demetrius Poliorcetes, but the "Four Years' War" which followed immediately prevented any action until Athens was once more at peace and under democratic government, in 303/2 B.C. Then the Athenians recalled their longstanding obligations to Nicon, and paid them.

L. 21. This, with the example restored in I.G. II, 194, is the only example of the aorist of $\sigma \phi \zeta \omega$ or its compounds in inscriptions of the fourth century. It is worthy of note that

iota adscriptum is found in the aorist as well as the present tense (cf. Meisterhans, op. cit. p. 181, 3).

L. 23. The name of Nicon's father is restored with much hesitation, as there is considerable doubt whether the mark on the stone is the trace of a Nu, or only a simple fracture in the surface of the stone. If Nicostratus be restored, we have an analogy in the case of Athenian families which show a decided tendency to retain variant forms of the same name from generation to generation, as Nicias, Niceratus, Nicon or Nicogenes (cf. Kirchner, Prosopographia Attica, s.v.).

L. 27. If the stoichedon arrangement is preserved, we must restore $\dot{a}\pi\dot{a}\cdot\delta\rho\alpha\chi\mu\hat{\omega}\nu$ in this line, as the phrase $\kappa\alpha\tau\dot{a}$ $\tau\dot{a}\nu$ $\nu\dot{a}\mu\dot{a}\nu$ has one letter too many. In an inscription so carefully cut as this we should not expect to find an extra letter crowded in. Yet there is no certain example of the phrase $\partial \pi \partial \cdot \delta \rho \alpha \chi \mu \hat{\omega} \nu$ in connection with crowns after 306/5 B.C. (Schmitthenner, De coronarum apud Athenienses honoribus, p. 19). Nor is there any proof that the formula κατὰ τὸν νόμον was used earlier than the archonship of Leostratus. Perhaps the earliest example of this phrase is found in an inscription published by Tod (B.S.A. IX, 1902-1903, pp. 154 ff.), belonging to the latter part of the archonship of Pherecles (304/3), or early in 303/2. I. G. II, 263, which was passed eight days after the decree in honor of Nicon, also has κατὰ τὸν νόμον. We can hardly assume that the new law was in force in the early part of the archonship of Leostratus, repealed and reënacted in the same I.G. II, 263 and the new decree are both in honor of foreigners, but Nicon's services were rendered to the state twenty years before, while the old law was still in force. might justify the use of the old formula, $\dot{\alpha}\pi\dot{\delta}\cdot\delta\rho\alpha\chi\mu\hat{\omega}\nu$, in this inscription, but in view of the fact that the law regulating the value of the crown was already passed and adopted, it is very unlikely that any exception was made in the case of Nicon's crown. If we study the use of the various formulae in the Attic inscriptions we find that changes are made only as a result of new laws, and generally following some shift of political parties. This excuse cannot be pleaded here. It is undoubtedly best to assume that the stone cutter wrote KATA TONOMON. By a common lipography which is found even in some of the most carefully carved stones, the final letter of the article was often omitted before a word beginning with the same letter.

The legislation enacted between 306/5 and 303/2 B.C., by which the formula regarding crowns was changed from the phrase $\dot{\alpha}\pi\dot{\alpha}\cdot\dot{\delta}\rho\alpha\chi\mu\hat{\omega}\nu$ to $\kappa\alpha\tau\dot{\alpha}$ $\dot{\tau}\dot{\delta}\nu$ $\nu\dot{\delta}\mu\nu\nu$, must have dealt with the values of the crowns. This is proved by the contemporary formulae in connection with crowns of olive wreaths, where no use is made of the phrase $\kappa\alpha\tau\dot{\alpha}$ $\dot{\tau}\dot{\delta}\nu$ $\nu\dot{\delta}\mu\nu\nu$ (cf. I.G. II, 256b (add.), II, 5, 270, II, 291, which should probably read $\theta\alpha\lambda\lambda\hat{\omega}$ $\sigma\tau\epsilon\dot{\phi}\dot{\alpha}\nu\dot{\phi}$ instead of $\chi\rho\nu\sigma\dot{\phi}$ $\sigma\tau\epsilon\dot{\phi}\dot{\alpha}\nu\dot{\phi}$). The value fixed by this legislation is unknown, but as it seems to have been enacted at some point between 306 and 303, when the Athenian treasury was much depleted, it was probably as low as could be consistent with the dignity of the gift.

This inscription is of value in that we gain from it for the first time a record of a sea fight in the Hellespont. We are able to ascribe this battle with certainty to the contest between the Athenians and the Macedonians in the Greek struggle for independence which followed the death of Alexander. The object of Athens in attempting to gain control of the Hellespont was twofold: to prevent the passage of Macedonian troops from Asia to Europe, and to attempt to regain her position as mistress of the seas. Students of the strategies of this war have always contended that Athens made a great mistake in not perceiving the importance of the command of the Hellespont, and in failing to contest the crossing of Alexander's veterans to Europe. We now know that she attempted to do so, but her failure to realize the importance of this move earlier in the war and the subsequent defeat of her forces at the hands of Clitus off Abydus decided the fate of the struggle. With this and the following battle near Amorgus the history of Athens as a sea power is closed.

ALLAN C. JOHNSON.

PRINCETON.



ARCHAEOLOGICAL DISCUSSIONS 1

SUMMARIES OF ORIGINAL ARTICLES CHIEFLY IN CURRENT PUBLICATIONS

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GENERAL AND MISCELLANEOUS

Conventions in Primitive Art. — In R. Ét. Gr. XXVI, 1913, pp. 1–19 (4 figs.), W. Deonna points out that the primitive artist, like the child, often ignores the position of the figure which he is drawing and represents parts not visible to the artist. Thus, a figure in profile will have two eyes. Again, a figure en face may be drawn with a double profile. Sometimes lack of skill in drawing and sometimes other things are responsible for the conventions of primitive art. The real motive must be sought in each case.

Quaternary Art. — In his Répertoire de l'Art Quaternaire (Paris, 1913, Ernest Leroux, xxxviii, 205 pp.; about 1500 figs.; 12 mo.; 5 fr.), Salomon Reinach furnishes students of the earliest art in Europe with a most valuable collection of the hitherto much scattered material. The introduction contains a chronological list of discoveries and publications in the field of quaternary art.

The Epochs of the Ice Age and Prehistoric Archaeology.—In Z. Ethn. XLIV, 1912, pp. 1–22 (6 figs.), J. BAYER discusses the epochs of the Ice Age geologically considered and those of prehistoric archaeological phenomena. Penck's system and that of M. Boule-H. Obermeier are both wrong in denying that the Magdalenian epoch was post-glacial.

Rock-Cuttings in Sicily and Etruria.—In Z. Ethn. XLIV, 1912, pp. 23–35 (5 figs.), E. Brandenburg, believing that the Etruscans belong to an Armenoid stock from Asia, compares rock-cuttings, evidently made for cult purposes in southeastern Sicily (at Cava d'Ispica and Scaliciani) with similar ones in Etruria. He thinks it probable that similar cuttings

¹The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor Bates, Editor-in-charge, assisted by Professor C. N. Brown, Miss Mary H. Buckingham, Mr. L. D. Caskey, Professor Harold R. Hastings, Professor Elmer T. Merrill, Professor Frank G. Moore, Professor Charles R. Morey, Dr. James M. Paton, Professor Lewis B. Paton, Professor A. S. Pease, Professor S. B. Platner, Professor John C. Rolfe, Dr. N. P. Vlachos, Professor A. L. Wheeler, and the Editors, especially Professor Marquand.

No attempt is made to include in this number of the JOURNAL material published after June 30, 1913.

For an explanation of the abbreviations, see pp. 146-147.

in Petra in South Palestine show Hittite influence reaching even there. Dahlmann's explanation of such table-like rocks as *stibadia* and *triklinia* he thinks wrong.

The Neolithic Age in Northern and Western Europe.—In his Studier öfver den ingre Stenåldern i Norden och Västeurope (Norrköping, 1912, Lithogr. Aktiebologet. 69 pp.; 7 pls.; with résumé in French), N. Aberg discusses the neolithic period in northern and western Europe, the forms of the implements used, and the spread of the culture from the north.

Megalithic Monuments.—In Ann. Arch. Anth. V, 1913, pp. 112–128 (pl.; fig.), T. E. Peet argues that the megalithic monuments of Asia, Northern Africa, and Europe are the work of one race, and that their wide extent is to be explained by the migration of that race.

Archaeological Papers at the International Congress for the History of Religions at Leyden. — In Actes du IVe congrès international d'Histoire des religions (Leyden, 1913, E. J. Brill. 172 pp.), the following papers are more or less closely concerned with classical archaeology. Pp. 133-134, J. Toutain points out that divinities of many different kinds, those of the air, of vegetation, of the sea, as well as chthonian divinities and local heroes were worshipped in caves. The use of caves for religious purposes goes back to very early times. P. 135, the same scholar calls attention to the cult of the Ptolemies in Cyprus as revealed by inscriptions. It may have had some influence on the later cult of the Roman emperors. Pp. 135-136, L. Deubner argues that the ceremony of lustratio among the Romans was originally apotropaic, as well as for purposes of purification. Pp. 137-138, W. N. Bates calls attention to three Greek vases in the museum of the University of Pennsylvania, upon which there appear to be survivals from the Aegean period. On one a youth about to make a sacrifice carries in his left hand what appear to be "horns of consecration." On a second vase the birth of Athena is represented, while under the throne of Zeus is a monster with winged human body and dolphin's head. The writer argues that the painter intended this for an Aegean divinity present at the birth of the goddess. On a third vase the birth of Athena is twice represented, but here a sphinx and Nike respectively are placed beneath the throne. The painter apparently regarded them as present at the scene. Pp. 140-141, L. R. FARNELL points out that hero cults were sometimes due to the influence of epic poetry, and argues that such was the cult of Achilles. Pp. 141 -142, J. B. Carter argues that the Rex Sacrorum among the Romans was originally a real king and that the name rex was retained for fear of Janus. As the Rex was connected with Janus, so the Regina was connected with Juno; and Janus-Juno antedated Jupiter-Juno. The Pontifex Maximus and the Virgo Vestalis Maxima in sacred law stood in the same relation to each other as the Rex and Regina did originally.

Centaurs in Ancient Art. — In his Centaurs in Ancient Art Professor Paul V. C. Baur has collected more than three hundred illustrations of the centaur from the earliest period down to about 480 B.C. These include two from Babylonia, a seal of Early Minoan date from Crete which he believes to have been an importation from Babylonia, six examples of geometric date, and the rest almost wholly from early Greek and Etruscan art. The monuments fall into two main classes, those in which the centaur has the legs of a horse, and those in which his forelegs are the legs of a man. Of

these, the former seems to be the earlier, though the Greeks knew both types from the beginning. A third class, which is not large, has human forelegs, but horses' hoofs in place of feet. [Centaurs in Ancient Art, The Archaic Period. By Paul V. C. Baur. Berlin, 1913, Curtius. 140 pp.; 15 pls.; 38 figs. 4 to. \$10.]

Archaeology in Croatia. — In the Vjesnik of the Croatian Archaeological Society, New Series XII (Agram, 1912), are the following archaeological papers: pp. 1-7 (6 figs.), V. Hoffiller, six new Latin inscriptions from Osijek (five tombstones and one milestone), a dedication by the collegae lapidari to Valirio Martiali is noteworthy; pp. 8-12 (fig.), R. Strohal, the inscription in the church of St. Lucia at Baška on the island of Krk; pp. 12-15 (fig.), J. Barlè, the chapel of St. John the Baptist at Dužica; pp. 16-123 (43 figs.), V. Hoffiller, arms of Roman soldiers under the early empire, second paper treating of body armor, hasta and pilum, and gladius and pugio; pp. 124-128, G. Szabo, terra Doubouch; pp. 129-197 (138 figs.), J. Brunsmid, stone monuments in the Croatian National Museum at Agram; pp. 198-200 (fig.), J. Brunšmid, fragment of a Roman military diploma from Mala Mitrovitsa in Servia; pp. 201-259 (67 figs.), G. Szabo, report of the Commission for the preservation of artistic and historical monuments for the year 1911; pp. 260-286, J. Brunšmid, hoards of coins found in Croatia and Slavonia; pp. 313-320 (3 figs.), Roman bronze jugs from Gušće.

A Tomb at Balčik. — In Jh. Oest. Arch. I. XV, 1912, Beiblatt, cols. 101–134 (47 figs.), K. Škorpil publishes an important vaulted tomb found in 1907 at Balčik, the ancient Dionysopolis, 35 km. north of Varna, Bulgaria. Among the objects found in the tomb, or in its vicinity, were three gold rings; various objects of a white metal composed of copper, tin and lead; twelve bronze vessels besides a bronze lamp, a strigil, a knocker, etc., and various objects of iron, glass, terra-cotta, bone and stone. They date from the middle of the fourth century B.C. to imperial Roman times, at which date the tomb was probably erected.

A Cypriote Fibula. — In Ann. Arch. Anth., V, 1913, pp. 129–131 (pl.), J. L. Myres publishes a Cypriote fibula of the Early Iron Age recently acquired by the Ashmolean Museum, Oxford. It is of a type peculiar to Cyprus, in which the original loop in the bow has become a solid knob.

Discoveries in North Arabia. — During the last few years the Dominican fathers, Jaussen and Savignac, have been carrying on a systematic exploration of the northern Hiğâz. The results of their researches appeared in *Publication de la Société des fouilles archéologiques*, Paris, 1909. The inscriptions published in this volume are discussed by M. LIDZBARSKI in

Eph. Sem. Ep. III, 1912, pp. 267-279.

Ancient History of the Near East. — The ancient history of southeastern Europe, western Asia, and Egypt has received, and is still receiving, so much from fresh discoveries that the accepted views of a few years ago are no longer tenable. Mr. H. R. Hall has endeavored to write a history of these regions which shall be in accord with modern historical science. In such a mass of details as he has introduced, some errors are bound to creep in, and in some instances his views do not agree with those of other scholars; moreover, details will necessarily need to be modified to take account of the latest (and future) discoveries. The book, as it stands, is,

however, a scientific treatment of a vast and complicated subject. It is divided into twelve chapters: I, Prolegomena; II, The Older Civilization of Greece; III, Archaic Egypt; IV, Egypt under the Old and Middle Kingdoms; V, The Early History of Babylonia; VI, The Hyksos Conquest and the First Egyptian Empire; VII, Egypt under the Empire; VIII, The Hittite Kingdom and the Second Egyptian Empire; IX, The Kingdoms of Syria and Palestine; X, The Assyrian Empire; XI, The Renovation of Egypt and Renascence of Greece; XII, Babylon and the Medes and Persians. An index is added. The illustrations and maps add to the clearness of the presentation. [H. R. Hall, The Ancient History of the Near East from the Earliest Times to the Battle of Salamis. London, 1913, Methuen & Co. xxiii, 602 pp.; 33 pls.; 14 maps. 8vo. 15sh. net.]

A Turkish Etymological Dictionary.— Archaeologists working in Asia Minor, or interested in identifying ancient place names in their Turkish dress, will find Bedros Effendi Kerestedjian's Dictionnaire etymologique de la lanque turque useful. The Turkish word is given in transcription with its meaning in French, and kindred words compared, where they exist, in various Asiatic and European languages. [Quelques matériaux pour un dictionnaire etymologique de la langue turque. Par Bedros Effendi Kerestedjian, édité par son neveu Haig, M. R. A. S. London, 1912, Luzac & Co. 364, 42 pp. 8vo. £ 1. 1 net.]

The Origin of the Indian Script. — In Or. Lit. XV, 1912, cols. 541–544, W. M. MÜLLER contests the current view that the old Indian alphabets are derived from Aramaic, or some other North Semitic alphabet, and brings evidence to show that they can be derived only from the South Arabian alphabet. The vowel system shows the influence of the Babylonian cuneiform.

The Tutelary Pair in Gaul and India.—In R. Arch. XX, 1912, pp. 341–349 (4 figs.), A. FOUCHER calls attention to the great similarity which exists between the pair of gods with cornucopia and other symbols of plenty worshipped in Gaul and the pair worshipped in India and represented in Gandhâra sculpture.

EGYPT

Wooden and Ivory Labels of the First Dynasty.—In S. Bibl. Arch. XXXIV, 1912, pp. 279–289 (3 pls.; 2 figs.), P. E. Newberry states that among the monuments discovered in the Royal Tombs at Abydos and Nagada occur a number of small wooden and ivory tablets. Each example is pierced at the top right-hand corner by a hole in order that it might be strung on a piece of string and tied to some object or objects. One of these tablets from the tomb of Hetep at Nagada is clearly a label for a necklace, which gives on one side the owner's name, and on the other side the number of beads in the string to which it was attached. Other labels correspond to the inscriptions written on the wine, oil, and preserved meat jars of the eighteenth and nineteenth dynasties.

Sculptures of the time of Amenophis IV.—In Ber. Kunsts. XXXIV, 1913, cols. 127–146 (14 figs.), H. Schäfer discusses several pieces of sculpture of the time of Amenophis IV, chiefly portraits of the king and of his family.

A Stele of the Eighteenth or Nineteenth Dynasty. — In. S. Bibl.

Arch. XXXV, 1913, pp. 37-40 (pl.), Miss M. Mogensen publishes a stele in the Ny Carlsberg Glyptothek at Copenhagen. The upper register is occupied by the figures of two divinities—Ptah and Sekhmet. On the lower register is a figure of a man, kneeling, his hands raised in adoration. He wears the well-known dress of the end of the eighteenth dynasty. The remainder of the register is occupied by an inscription in thirteen vertical lines of hieroglyphs. It contains an unusual type of hymn to Ptah and Sekhmet.

The Carnarvon Tablet No. 1.—In S. Bibl. Arch. XXXV, 1913, pp. 117–122 (pl.), P. E. Newberry discusses the historical tablet recently published by Lord Carnarvon relating to the wars of the Thebans with the Hyksos. The substance of the inscription is briefly this: In the seventh year of Kamosi, the Hyksos, with Avaris as their capital, controlled the Delta and Middle Egypt as far as Cusae; Kamosi, with headquarters at Thebes, governed Upper Egypt as far as Assuan; Ethiopia was in the hands of a third prince, whose name is not given. By command of the god Amon, the Theban king went north to drive back the "Asiatics," with an army composed of Nubian mercenaries, and captured Teta, the son of Pepa, in the city of Nefrûs.

King Demd-Ab-Taui Uatjkara.—In S. Bibl. Arch. XXXIV, 1912, pp. 290–292, H. R. Hall discusses the chronological position of a new Egyptian king discovered by Weill and Reinach at Koptos in 1910. Weill regards him as an immediate successor of Pepi II. Hall holds that the character of his names indicates, rather, that he belonged to the ninth or Heracleopolitan dynasty.

Yuia the Syrian. — In S. Bibl. Arch. XXXV, 1913, pp. 63–65 (2 pls.), H. R. Hall describes a little bowl or saucer which belongs to Mr. E. Towry Whyte. It is in itself a pretty specimen of the blue-glaze ware of the eighteenth dynasty, but its great interest lies in its inscription, which, if genuine, is important. The inscription not only mentions the names of Iuaa, or Yuia, and Tuyu, the father and mother of Queen Teie, or Tîi, but also states a fact not previously known, that Yuia was a prince of Zahi (Tjahi), the Phoenician coast-land and Lebanon district.

The Name of the Pharaoh Psammetik. — In Or. Lit. XVI, 1913, cols. 49-52, W. M. MÜLLER explains the name Psammetik as meaning "the man of mixed wine," and derives from this the story of Herodotus how this

king used his helmet for presenting a libation.

Pi-Haīḥrōth. — In Pal. Ex. Fund. XLV, 1913, pp. 94–95, G. H. SKIP-with claims that the name Pi-Haḥīrōth, which occurs in the Priestly Code in Ex. 14:2, 9, is not Egyptian, but is the Assyrian or Babylonian hirāti, a derivative of harā, or hirā, "to dig." Nekō II (the Pharaoh-Necoh of 2 Kings 23:29), who succeeded Psammetik in 609, completed the canal through Goshen to the Red Sea, partly on the track of the canal which Rameses II had led from the Nile as far as the Bitter Lakes. After the Persian eonquest, Darius I (521–486) repaired the canal. The Priestly Code cannot be far removed in date from this epoch.

Sarcophagus Texts and the Book of the Dead. — In Arch. Rel. XVI, 1913, pp. 66-85, G. Roeder discusses the Book of the Dead and the sar-

cophagus texts of the Middle Kingdom.

Lucky and Unlucky Days. — In Arch. Rel. XVI, 1913, pp. 86-100, W.

WRESZINSKI discusses three papyri of different dates in the British Museum which are calendars designating which are lucky and which unlucky days.

Cults of Prehistoric Egypt. — In Ann. Arch. Anth. V, 1913, pp. 132-136 (7 figs.), P. E. Newberry discusses the boats with cult objects found on some of the prehistoric vases of Egypt. This pottery was probably made in the Delta.

Cult Signs on Egyptian Vases.—In Ann. Arch. Anth. V, 1913, pp. 137–142, P. E. Newberry publishes a list of the Egyptian vases with cult signs known to him.

The Cult Animal of Set.—In Klio, XII, 1912, pp. 397-401 (2 figs.), P. E. Newberry argues that the cult animal of Set, represented on the monuments, is to be identified with Aelian's wart hog (*Phacochoerus africanus*).

Animal Pictures and Inscriptions at Assuan. — In Z. Ethn. XLIV, 1912, pp. 627-658 (25 figs.), G. S. Schweinfurth treats of animal pictures and inscriptions chiefly rectangular and rectilinear on the sandstone cliffs

of Assuan, dating from various periods of Egyptian history.

A Scribe and a Baboon. — In Mon. Piot, XIX, 1911, pp. 5-42 (2 pls.; 21 figs.), G. Benédite publishes two small groups of sculpture in the Louvre representing the scribe Nibmirtouf seated below an altar upon which squats Thoth in the guise of a baboon. They date from the nineteenth dynasty. In one group, which is of slate, the scribe is reading; and in the other, which is of alabaster, he is writing. The two groups, as well as a third in Berlin, were probably found somewhere in the Delta. The author discusses at length the baboon in Egyptian art.

Dating of Egyptian Pottery. — In S. Bibl. Arch. XXXV, 1913, pp. 101–113 (pl.), F. Legge comes to the conclusion that the black-topped red pot has fallen from its high place as the earliest type of Egyptian ceramics, and as the certain test of "prehistoric" date. With this must go the whole

scale of sequence-dates which depends on its antiquity.

Egyptian Fayence.—In Ber. Kunsts. XXXIV, 1913, cols. 49–62 (20 figs.), H. Schäfer gives an account of Egyptian fayence, with illustrations from objects in the Berlin museum. The Egyptians had learned the process of its manufacture before they became known to history and they continued to make it until late times. Fayence attained its greatest perfection in the eighteenth dynasty, but there was also a renaissance about the time of the Christian era and later. The oldest specimen shown dates from about 3500 B.C.

Demotic Tax-Receipts. — In S. Bibl. Arch. XXXV, 1913, pp. 114-116, 150-153 (2 pls.), H. Thompson gives photographs of one or more examples of each kind of demotic tax-receipt in J. G. Milne's collection of ostraca from Dendera, and in the writer's own collection of which the provenance is almost certainly Thebes.

A Demotic Ostracon. —In S. Bibl. Arch. XXXV, 1913, pp. 95–96 (pl.), H. Thompson publishes an ostracon in his collection. It is a fragment of the usual pale red-brown clay of Theban ostraca, of irregular form measuring roughly 10.5 cm. along the right-hand edge by 9 cm. at its greatest width. The text is written in a very neat hand resembling that of the Setna papyrus, and may date from about the middle Ptolemaic time. It states the result of a supplication made to the god Amenhotep on behalf of

a sick man; and the ostracon is probably the original answer given by the priest on behalf of the god.

The Geography of Eastern Africa from Egyptian Monuments.— In Rend. Acc. Lincei, XXI, 1912, pp. 3–68 E. Schiaparelli presents the third of his articles on the geography of eastern Africa as based on the indications of the monuments. It treats of the lists of peoples conquered by Thothmes III on the pylons of Karnak, by Amenophis III on the temple at Soleb, by Seti I at Sesebi and Karnak, by Ramses II at Abydos, by Ramses III at Medinet Abu, and of other lists at Taraca and Ombos.

Origin of Weighing.— J. R. McClean argues, chiefly from early Egyptian documents, that "gold was the first precious metal which introduced weight into the ordinary business affairs of commercial life," and that weighing was synonymous with the assignment of value. (Num. Chron. 1912, pp. 333–351.)

The Aramaic Papyri of Elephantine.—In Eph. Sem. Ep. III, 1912, pp. 238-260, M. Lidzbarski gives a résumé of the recent literature on the Aramaic papyri of Elephantine, and sums up the results for the establishment of their text and interpretation.

Samaritans and Jews in Elephantine.—In Or. Lit. XV, 1912, cols. 337–344, C. VAN GELDEREN maintains that the Jewish colony at Elephantine, which has recently been made known to us through the discovery of papyri of the fifth century B.C., was originally of Samaritan origin, and was settled as a military colony by Esarhaddon, or Ashurbanipal, at the time of their invasion of Egypt. Thus he explains their spelling of the name of their god as Yaho, and their worship of the goddesses Ashima-Bethel, and Anath-Bethel. This colony was subsequently reinforced with Jewish elements, and received a predominatingly Jewish character.

The Gates of the Temple of Yahu at Elephantine.—The papyri from Elephantine mention expressly that the Jewish temple of Yahu in that city had five gates. In Or. Lit. XV, 1912, cols. 247–248, A. Jirku calls attention to Isaiah 19:18, and shows that the present text of the verse, which declares that "five cities in the land of Egypt shall pray to Yahweh in the language of Canaan," offers difficulties; and that by a slight alteration of the text the passage will read, "five gates in the land of Egypt," which may be an allusion to the Jewish temple at Elephantine.

The Laws of Alexandria.—At the December (1912) meeting of the Berlin Archaeological Society, O. Kern spoke on a papyrus which had recently come into the possession of the University of Halle, one of the most notable manuscripts in existence. Dating apparently from the time of Ptolemy Philadelphus, it contains extracts from the laws and municipal regulations of the city of Alexandria and other related matter, all of which has hitherto been entirely unknown. It is to be published shortly under the title Dikaiomata. (Arch. Anz. 1913, col. 29.)

Representations of Egyptian Stories in Graeco-Roman Monuments. — In S. Bibl. Arch. XXXIV, 1912, pp. 298–307 (5 pls.), A. Wiedemann states that the ancient Egyptians were very fond of inventing and relating legends and fables. This is shown by the extraordinarily large number of myths about the gods which have come down to us in a more or less complete form, or which are hinted at, principally in magical texts. The Egyptian tales preserved in Greek and Roman literature far exceed in

number those derived from other sources. They are found not only written, but also depicted or expressed in works of art, a fact which has received but little notice. The artists of the Hellenic period especially, but occasionally those of earlier times, adopted in their paintings, reliefs and mosaics, ideas drawn from Egyptian tales. Stories of King Bocchoris, described as an able and upright judge, were especially in favor. It is this king, apparently, who appears on a fresco at Pompeii representing a variant of the Judgment of Solomon. At Pompeii, not far from this fresco, there is another in which scenes connected with the fabulous story of Menes, the founder of the Egyptian kingdom, are represented in travesty. The identification of the pyramids with the granaries of Joseph had some influence on pictorial art.

A Latin-Greek-Coptic Conversation Book.—In Klio, XIII, 1913, pp. 27-38, W. Schubart discusses the Latin-Greek-Coptic conversation book found in Egypt and now in the Berlin museum. It dates apparently from the sixth century A.D., and is evidence for the use of Latin in Egypt at that time.

BABYLONIA, ASSYRIA AND PERSIA

The New List of Early Babylonian Kings. — In Or. Lit. XV, 1912, cols. 289-294 and 481-485, A. POEBEL discusses the lists of the kings of the



FIGURE 1. - TABLET OF ENKHEGAL.

early Babylonian dynasties recently published by Scheil and Hilprecht. See also P. Schnabel, Or. Lit. XVI, 1913, cols. 52–53; C. van Gelderen, Or. Lit. XVI, 1913, cols. 145–149; F. Thureau-Dangin, R. d'Assyriologie, IX, 1912, pp. 81–83, 111–120 (2 pls.).

Fhe Tablet of Enkhegal.—In the *Museum Journal* of the University of Pennsylvania, IV, 1913, pp. 50-54 (fig.), G. A. Barton translaterates and translates the very early inscription of Enkhegal (Fig. 1) described by Hilprecht in *Z. Assyr* (XI, p. 330; XV, p. 403). It is in the museum of the University of Pennsylvania. It apparently dates from about 3100 B.C. and records the ownership of several pieces of land for which payment was made in bronze and in grain.

An Early Babylonian Inscription. — In Or. Lit. XVI, 1913, pp. 6-12 (fig.), G. A. Barton discusses the very archaic stone tablet published by him in the Museum Journal of the University of Pennsylvania (see A.J.A. XVI, pp. 564 f.).

The Babylonian Hieroglyphic Tablet. — In J.A.O.S. XXXIII, 1913, pp. 16–23 (2 figs.), Miss E.S. Ogden attempts to read the so-called Hieroglyphic Tablet published in T.S.B.A. Vol. VI, p. 454 ff. The tablet is clearly a sign-list. The characters at the right hand of each column correspond to those on the kudurrus of the Cassite and Pashe dynasties. If the Cassites were an Elamitic people, it is likely that they used or were familiar with the early Elamitic writing. As part of their very strong influence upon Babylonian affairs, may not these Cassites have made some attempts to equate their own older signs with those of the language about them? If so, something like the present sign-list would have resulted.

The Location of Upî. — In Z. Morgenl. Ges. LXVII, 1913, pp. 133-135, A. Ungnad discusses the location of the old Babylonian city Upî, the seat of one of the earliest Babylonian dynasties. He holds that it is to be identified with Seleucia, and not with the Opis mentioned by Xenophon as lying on the Tigris at the mouth of the river 'Adêm.

Sumerian and Semitic Elements in Old Babylonian Law.—In R. Sém. XX, 1912, pp. 378–397, M. SCHORR points out that the legislation embodied in the code of Hammurabi is already found in operation during the reigns of earlier kings of the first dynasty. This raises the question whether the laws of Hammurabi may not be ultimately of Sumerian origin. After an elaborate examination of the legal conceptions found in the earlier Sumerian contract tablets, he comes to the conclusion that there is no evidence of extensive Sumerian influence in the code of Hammurabi, but that in all its main features it is to be regarded as a creation of the Semitic genius.

The Sumerians of Lagash.—In S. Bibl. Arch. XXXV, 1913, pp. 13–36 (pl.), T. G. Pinches summarizes the results of the discoveries at Tel-loh and the decipherment of the inscriptions for the history of the civilization of the Sumerians of the city-state of Lagash in the pre-Semitic period. He describes their racial type, manner of life, writing, religion, calendar, priesthood, form of government, officials, artisans, and agricultural products.

The Oath in Sumerian Inscriptions. — In J.A.O.S. XXXIII, 1913, pp. 33–50, A. B. MERCER states that the legal form used up to and including the period of the dynasties of Ur-Nina and Kiš is not very different from that employed during later periods. There is, however, no oath. It is not till we reach the dynasty of Ur (ca. 2295 B.C.) that we meet with contracts which contain a direct oath. Many of the contracts belonging to this dynasty mention the fact that an oath was taken without stating whether any person or thing was invoked; others state that the oath was taken by

invoking the name of the king. The only historical inscription representing the whole Sumerian period which contains an oath belongs to the dynasty of Ur-Nina, and the reign of Eannatum, king of Lagash (ca. 2900 B.c.). The oath is made by invoking the šušgal of definitely named deities. A conditional malediction was pronounced. Here we have the older form, the malediction, and its successor, the oath, side by side in an important transaction. As this historical document shows, we have in these inscriptions the evidence, not of the growth of a religious idea, but that of a legal custom in commercial transactions.

The Sumerian Calendar. — In J.A.O.S. XXXIII, 1913, pp. 1-9, G. A. Barton states that there are many unsolved problems in Sumerology, and one of these is the arrangement and development of the calendar. For the period of the dynasty of Ur the area of uncertainty has been for Lagash and Nippur reduced to narrow limits, but for the earlier period there is as yet no agreement. The month names of the time of Urkagina are in a thoroughly fluid state, some months being named from any one of several agricultural processes which took place in it, but the names themselves occur in their fullest forms. They are not the mere meaningless fragments which some of them had become by the Ur period. Such changes as are traceable in the Sumerian calendar before the Ur period, occurred in the space of 500 years and not 2100 years. Taking into account the new information which has come to light, the writer publishes a tentative list of months. (See also T. G. Pinches, S. Bibl. Arch. XXXV, 1913, pp. 123-128.)

The Antiquity of Babylonian Astronomy. — In S. Bibl. Arch. XXXV, 1913, pp. 41-46 (pl.), L. W. King describes a Neo-Babylonian astronomical treatise in the British Museum, the text of which, together with an analysis of its contents, has just been published in the official series (see King, Cuneiform Texts in the British Museum, Part XXXIII (December, 1912), pp. 3 ff.; Plates 1-8). The interest of the document is twofold. On the one hand, it provides an important accession of new material for the correct identification of the Babylonian fixed stars and constellations. On the other hand, the document has a wider interest from its bearing on the vexed problem of the age of Babylonian astronomy. The backbone of the theory of the Pan-Babylonians, which supplies the central and sole support for its system of astrological World Ages, is the assumption that a knowledge of the precession of the equinoxes was possessed by the earliest Babylonians before the dawn of history. The new evidence is in accord with the view that the Babylonian methods of measuring the heavens remained for a long time primitive, and that the beginnings of scientific astronomy, in the strict sense of the term, are not to be looked for at a much earlier period than the eighth century B.C. As to the alleged Babylonian discovery of the precession of the equinoxes, the text, so far as its evidence goes, inclines one to accept as accurate its traditional ascription to Hipparchus of Nicaea in the second century B.C. For a contrary view of the antiquity of Babylonian astronomy, see E. F. Weidner, Or. Lit. XVI, 1913, cols. 53-54; 102-103, where the view is maintained that a developed astrology is found as early as the time of Gudea and Sharrukin.

The Babylonian Naming of the Years.—It has long been disputed whether the Babylonians named their years from events of the preceding year, or waited until the end of the year before they gave it its name. In

Or. Lit. XV, 1912, cols. 392–393, E. Weidner publishes a tablet which seems to prove that in the period of the dynasty of Ur the year was named from an event of the previous year. This was probably also the practice under the first dynasty of Babylon.

A Tablet from Umma.—In S. Bibl. Arch. XXXV, 1913, pp. 47–52 (pl.), S. Langdon describes a tablet from Umma recently acquired by the Ashmolean Museum, giving a complete list of the names of the months in use there in the period of the dynasty of Ur. The year at Umma apparently began with the setting of Spica, as did the year at Lagash from the era of Sargon onward, and at Nippur from an early period until it was shifted back to the original system of beginning the year at the spring equinox.

Days of Rest in Ancient Babylonia.—In R. Sém. XX, 1912, pp. 398-399, M. Schorr calls attention to the fact that in several contracts of the period of the first dynasty from Dilbat the expression occurs, "on three days of the month the laborer shall take possession of his hand." This obscure phrase he interprets to mean that the laborer shall have control over his own activity on the three days in question. This interpretation is favored by the fact that certain contracts call for labor during a month and three days. These three days seem designed to compensate for the three days lost as holidays during the month. Nothing is said about the intervals between these days of rest. It may be conjectured that they came every ten days in a lunar month of thirty days. If so, they have nothing to do with the Babylonian Sabbath that coincided with the phases of the moon.

An Assyrian Astronomical Peport. —In Or. Lit. XVI, 1913, cols. 204–212 (2 figs.), E. F. Weidner publishes a tablet which records the course of the planet Jupiter for a period of over a year. The names used for the constellations prove the dependence of Greek astronomy upon Babylonian.

Primitive Semitic Gods.—In Or. Lit. XVI, 1913, cols. 200-204, D. NIELSEN criticises the prevailing tendency to regard the Babylonian gods as universal Semitic deities. They are not found in pre-Christian Arabia, and it is a false principle to regard so highly developed a religion as the Babylonian as exhibiting the primitive Semitic type. When we compare the different Semitic religions, we find only three gods that are common to all the Semites. These are the sun, the moon, and the planet Venus. These, accordingly, are to be regarded as the earliest Semitic objects of worship.

A Political Hymn to Shamash. — In J.A.O.S. XXXIII, 1913, pp. 10-15, J. D. Prince translates a hymn of Šamaš-šum-ukîn, the rebellious viceroy and brother of the last great Assyrian king Ašur-bâni-pal. After the usual praises of the divine power of the Sun-god, the hymn continues significantly in line 13: "The unopened documents of my glory thou proclaimest," implying that an unknown but glorious future awaits the king. Most significant of all, Šamaš-šum-ukîn prays in line 27: "My partner may I overcome," and in line 30: "May I change my command"; viz., release himself from the Assyrian overlordship.

The Origin of Animal Symbolism in Babylonian Art. — In S. Bibl. Arch. XXXIV, 1912, pp. 276–278, L. W. King states that one of the most striking features of the later Assyrian palaces are the colossal lions and the winged bulls, which flanked the main doorways, and were evidently believed

to act as divine guardians for the protection of the entrance. The fashionable explanation at the moment is that all such animal forms are to be traced back ultimately to an astrological origin. The symbolism should rather be traced to the grinding and groaning produced by the heavy temple-doors, when being pushed open or shut, and to the shricking of its bolt. The noises suggested the cries of animals, which, in accordance with the tenets of primitive animism, were constantly thought to inhabit the doors and gateways and to guard them.

The Origin of the Semitic Type of Language. — In Z. Assyr. XXVIII, 1913, pp. 81-91, H. BAUER holds that the peculiarity of having uniformly three consonants in the root, which is characteristic of all the Semitic languages, arose from the analogy of the verbal stem qatala, which imposed itself gradually upon all other roots; and that the triconsonantal formation

of the nouns was due to the analogy of the verbal participles.

The Names of the Cuneiform Signs. — The ancient Babylonians had names for their 400 or more signs just as we have names for the letters of our alphabet. Our knowledge of these is derived from the so-called "syllabaries," in which the names of the signs are often given, along with their Sumerian and Semitic value. In Mitt. Vorderas. Ges. XVIII, 1913, pp. 1–113, V. Christian discusses the origin and meaning of these names. Some of them are derived from the phonetic value of the character, others are descriptive of the form of the sign, or contain the name of the object that is depicted. Some of these names contain primitive Sumerian phonetic values that have gone out of use in the later language. Other names describe signs as compounded out of various simple signs.

Three Babylonian Tablets.—In J.A.O.S. XXXIII, 1913, pp. 24-32, F. A. VANDERBURGH publishes three clay tablets which contain memoranda for the month of food consumed by messengers. The nomenclature for the months would place the tablets not later than the third or fourth

dynasty of Ur.

Personal Names of the Cassite Period. — In Yale Oriental Series, I, 1912, pp. 1–208, A. T. Clay gathers all the personal names from documents that have been published, and from unpublished tablets in the Museum of the University of Pennsylvania, that belong to the period when the Cassite rulers held sway over Babylonia, from about 1750 B.c., to about 1173 B.c., a period of nearly seven hundred years. An effort has been made to include all published cuneiform tablets of this period, excepting the so-called Cappadocian tablets. These names are not only Babylonian, but also Cassite, Hittite, Amorite, and of other foreign nations. Accordingly they throw much light upon the migrations of races in Western Asia during the Cassite period.

Babylonian Records of the First Millennium B.C.—In a volume privately printed (New York, 1912), A. T. Clay publishes copies of 101 tablets in the library of the late J. P. Morgan. The texts belong to the first millennium B.C., with the exception of Nos. 1 and 1 A, which are dated in the reign of Nebuchadrezzar I (ca. 1155–1140 B.C.). More than two-thirds of the documents are personal contracts, land titles, rentals of houses, sales of slaves, promissory notes, mortgages, assignment of obligations, agreements on oath to perform certain duties, etc. The first twenty-eight, as well as other texts, belong to the class known as "Temple Administrative

Archives." These contain principally payments to individuals in the temple service; or are receipts for expenditures made in the interests of the temple. The chief value of these texts from the early period is of a palaeographical character, because they are the first published documents of the age they represent. They are also valuable because of the foreign names contained in them, which show that the proportion of foreigners in the service of this particular temple, in this age, was larger than those bearing Babylonian names. At present it is difficult to appreciate fully the source of this foreign infusion beyond the fact that quite a number of the names are West Semitic, i.e., Amorite and Aramaean. The volume is provided with full indices of personal names and names of places.

The Meaning of the Masseboth. — In Or. Lit. XV, 1912, cols. 248–252, K. Budde opposes the current view that the Masseboth, or stone pillars, in Semitic lands are phallic emblems. These stones represent rather the human body, and may serve as emblems both of gods and goddesses. They are similar to the grave stones in Mohammedan cemeteries, where the sexes are distinguished by the ornamentation of the top of the stones. This is the reason why, in Nabataean inscriptions, such stones are known as nefesh, "soul."

The Origin of the Art of Weaving.—In S. Bibl. Arch. XXXV, 1913, pp. 159-160, A. Boissier shows that the art of weaving was of Sumerian origin, and that a number of the technical words connected with weaving in Hebrew, Greek, and other languages are loan-words from the Sumerian.

The Horse in Babylonia. — In Mitt. Vorderas. Ges. XVIII, 1913, pp. 1-9 (3 figs.), B. Meissner shows that there is no certain evidence of the existence of the horse in Babylonia before 2000 B.C. In a letter of the first dynasty the writer says "Take one kor of grain as fodder for the horses, so that the horses may eat and not be hungry." From this time onward horses are frequently mentioned as the property of the wealthy, and in the Amarna letters the Pharaoh sends his good wishes to the horses as well as to the family of the king of Babylon. How long before the first dynasty horses were introduced into Babylonia, and from what region they came, it is impossible with our present sources of information to determine. Horses are unknown in Arabia during the whole Assyrian period.

Abraham as the Inventor of an Improved Plough. — In the Museum Journal of the University of Pennsylvania, IV, 1913, pp. 55–56, J. A. Montgomery calls attention to a passage in the Judaistic Book of Jubilees, according to which Abraham was the inventor of the seeder attached to the ancient Babylonian plough, as shown on a seal impression in the University Museum (see A.J.A. XV, p. 222).

The Cultivation of Dates in Ancient Babylonia. — In R. d'Assyriologie, X, 1913, pp. 1–9, V. Scheil gathers from ancient Babylonian tablets the following facts in regard to the culture of the date palm: There existed in Mesopotamia about 2400 B.C. large palm gardens containing many acres. The value of these was not reckoned by the superficial area, but by the number of trees. Artificial fertilization of the female palm trees was known, and the trees were partly cultivated. The yield was reckoned for a series of trees, not by weight, but by the bulk of the fruit. The maximum produced by a tree was 300 qa, that is, 105 kilos or 141 liters. Accounts were kept with the utmost precision.

The Sun and the Saw.—Ancient Babylonian art represents the sun god with a saw in his hand. In Or. Lit. XV, 1912, cols. 305–306, I. Löw shows that this representation receives illustration from a statement of the Talmud: "It seems to thee as if the sun rubbed itself across the firmament, since it saws across the firmament as a saw cuts through wood."

An Assyrian List of Plant-Names.—In *Mitt. Vorderas. Ges.* XVIII, 1913, pp. 10-47, B. Meissner publishes the third tablet of a list of Sumerian and Semitic plant-names of which other portions have previously been published.

A New Inscription of Sargon of Assyria.—In Exp. Times, XXIV, 1913, pp. 398–401, T. G. Pinches describes a noteworthy inscription which came to the knowledge of the authorities of the Oriental Department of the Louvre last year and was published by Thureau-Dangin. The original is a tablet of baked clay in the usual Assyrian style, 37.5 cm. high by 24.5 cm. wide, and it bears, in two columns on each side, no less than 430 rather long lines of writing. The inscription refers to the campaign of Sargon in the lake region of Van and Urmia in 714 B.C.

Labashi-Marduk, King of Babylon. — In Or. Lit. XV, 1912, cols. 349—350, W. J. Chapman shows that the reign of nine months in 556 B.C. assigned to Labashi-Marduk by Berossus in Josephus (c. Apionem, I, 20) is impossible. Contracts of his reign all date from the month Airu from the year of his accession. He conjectures that there is a mistake in the text of Josephus, and that instead of "nine months" it should read "one month and nine days."

Danaans and Ionians.—In Z. Assyr. XXVIII, 1913, pp. 92-99, D. Luckenbill shows that the names Iadnana and Iamani are used seemingly interchangeably in the inscriptions of Sargon of Assyria. Iadnana, Iadanana, is the cuneiform rendering of "the isles of the Danaans." By the time of Sargon of Assyria (722-705 B.c.), the Danaans had disappeared from the scene, and the "Greeks" who took their place were known as "Ionians." The name Iadanana still survived, but to avoid misunderstanding, the scribe who used the name in the inscription of Esarhaddon, placed the current name Iaman (!;) in apposition with it. The Old Testament does not know the name Danaoi, but the name Javan occurs in the genealogical lists of Gen. 10, and elsewhere. To the Hebrews, therefore, as well as to the Assyrians, the Ionians, but not the Danaoi, were known.

The Original Script of the Manichaeans.—In $J.A.\partial.S.$ XXXII, 1912, pp. 434-438 (2 pls.), J. A. Montgomery discusses further the script of the Manichaeans (see A.J.A. XVII, p. 274).

Astyages. — In Or. Lit. XVI, 1913, cols. 97–101, G. Hüsing holds that the original Greek spelling of the Median name Astyages was 'Αστυήγας, and that there were two monarchs of this name, the one recorded by Berossus as a contemporary of Nabopolassar, and the other the last king of Media. These two have been confused by Herodotus.

Cambyses. — In Alt. Orient, XIV, 1913, part 2, pp. 1-31, J. V. Prášek discusses the life of Cambyses in the light of the more recent archaeological and historical researches. He takes up the sources, Cambyses' relation to the family of Cyrus, his internal policy, the death of Bardiya, the expedition to Egypt, the revolution of Gaumata, the alleged cruelties of Cambyses in Egypt, and his death.

SYRIA AND PALESTINE

Israel's Conquest of Canaan. — In J. Bibl. Lit. XXXII, 1913, pp. 1-53, L. B. PATON shows that the older Biblical sources favor the view that the conquest of Canaan was effected by the Hebrews in two divisions, the Leah tribes coming first, and the Rachel tribes following. The archaeological evidence points in the same direction, since it seems to show that Hebrews were settled in Canaan as early as the eighteenth Egyptian dynasty, and that the Exodus did not occur until the nineteenth dynasty. Taking all the data into consideration, one might formulate tentatively some such hypothesis as this: - Reuben, Simeon, Levi, and Judah, the older Leah tribes of the genealogies, were identical with the Habiru migration of the Tel el-Amarna letters. The younger Leah tribes, Issachar and Zebulun, were a later wave of the Habiru migration, or an offshoot from the older Leah tribes. The Rachel tribes came out of Egypt under the leadership of Moses and Joshua, and about 1200 B.C. forced their way into Canaan between the two divisions of the Leah tribes.

The Route of Israel in the Desert. - The prevailing view among modern scholars regarding the location of Sinai and the route of the Exodus has long been to the effect that the current interpretation of the Exodus narratives which places Mount Sinai at the southern end of the peninsula of Sinai is wrong. In Bibl. World, XLI, 1913, pp. 238-244, S. PRENTICE argues for the rehabilitation of the traditional view.

The Feast of Jeroboam and the Samaritan Calendar. —In Exp. Times, XXIV, 1913, pp. 198-201, M. GASTER maintains that the feast of Jeroboam mentioned in 1 Kings 12:31-33, that fell one month later than the feast at Jerusalem, was due to a different system of inserting the intercalary months in the North Israelitish calendar, and that this system has survived among the modern Samaritans.

The Name Jerusalem. — In Or. Lit. XVI, 1913, cols. 152-157 (fig.), H. GRIMME attempts to show that the name Jerusalem is not of Semitic origin, but is derived from the Hittites and has analogies in Asia Minor. A Hittite occupation of Jerusalem is attested by Ezekiel 16:3.

Ossuaries from Jerusalem. — In Or. Lit. XV, 1912, cols. 529-536 (9 figs.), H. GRIMME discusses a number of ossuaries that have been found in Jerusalem during the last few years. These all show a great similarity in their form and ornamentation. They probably belong to one period, and come from one family tomb. The inscriptions upon them contain the names of four generations of the family of a certain Kallon, the son of Yesheb'ab. The type of writing indicates a period between 100 B.C. and 70 A.D.

A Recent Find of Jewish Measures. - In the absence of a single known specimen of the ancient Hebrew measures of length and capacity students of the subject have hitherto been almost entirely dependent on equations with the better known measures of Greece and Rome. A special interest, accordingly, attaches to a double series of actual measures of capacity discovered a few years ago by the Assumptionist Fathers in Jerusalem. A full account of all the finds is given by Père Germer-Durand in a lecture published with illustrations in a small volume entitled Conférence de Saint-Etienne, 1909-1910 (Paris, Lecoffre). The first set consists of four stone vessels standing to each other in the proportion of 1, 2, 3, 4. The largest of

the four is said to measure 21.25 litres, which is 37.42 pints. This he identifies with the bath. The second set consists of eleven small stone measures which turned out to be in definite proportional relations to each other, and all in a similar relation to the dry measure known originally as the omer, and later as the issaron, or 'tenth part' of the ephah (Ex. 16:36). These eleven measures have been described by Germer-Durand as ranging from $\frac{1}{6}$ of an omer to 8 omers. In Exp. Times, XXIV, 1913, pp. 393–395, A. R. S. Kennedy claims that the fact is, that the new measures from Jerusalem represent only half of those with which they have been identified by their finders.

The God Mithra in Palestine. — In Or. Lit. XV, 1912, cols. 252-254, W. M. MÜLLER publishes the Egyptian Semitic name Mithra-shama', "Mithra has heard." In the light of the discovery of the Aryans and the Aryan gods Mithra, Varuna, and Indra in the tablets of Boghazkeui, this name is of interest as showing the extent of Aryan influence in Western Asia in the time of the eighteenth dynasty.

The Name of the God Eshmun. — In Eph. Sem. Ep. III, 1912, pp. 260–265, M. Lidzbarski maintains that in the name of the Phoenician god Eshmun the final n is an afformative, so that the root is to be regarded as δm rather than δmn . With it is to be compared the name of the goddess Ashima, who appears in the papyri from Elephantine. Both are connected with the Hebrew word Shem "name."

The Phoenician Inscription from Zenjirli.—In the year 1902 the excavations at Zenjirli, which were begun in 1894, were carried forward. The results were published in Ausgrahungen in Sendschirli, IV, Berlin, 1911. One of the most important of the discoveries was a long Phoenician inscription set up by Kilamū, king of Ya'di, who reigned in the second half of the ninth century B.C. This is one of the oldest records in alphabetic writing, and is the longest and most important Phoenician monument that has yet been discovered. In Eph. Sem. Ep. III, 1912, pp. 218–238 (fig.) M. LIDZ-BARSKI discusses the literature on this inscription that has appeared thus far, and gives a new transcription and translation.

Phoenician Reliefs in Constantinople.—In Rec. Past, XII, 1913, pp. 59–64 (2 figs.), P. S. Ronzevalle publishes a sculptured base from Fi, Syria, now in the museum at Constantinople. It is nearly square, measuring 1 foot 7 inches. On one side are reclining bull sphinxes; and on the other a scene of adoration, below which is a narrow band with two humped bulls facing each other on either side of a sacred palm tree. The relief seems to date from Hellenistic times. The writer also publishes two small reliefs from Saida, representing youthful priests in an attitude of adoration. They may date from the Roman period.

The Princeton Expedition to Syria. — In Part 3 of Section A, Division II of the Publications of the Princeton University Archaeological Expeditions to Syria in 1904–1905 and 1909 (Leyden, 1913, E. J. Brill. Pp. 149–213; figs. 130–197; 2 maps), Howard Crosby Butler describes the architectural remains of the ancient city lying in the desert south of Djebel Haurân, now known as Umm idj-Djimâl. It was evidently the metropolis of the region, and was perhaps called Thantia in antiquity. It was a walled town covering a space about 800 m. long and from 300 to 500 m. wide. Among the ruins are churches of three different centuries and houses of every period from

the first to the seventh century A.D., but most of the buildings now standing were erected in the sixth century. An inscription on one of the city gateways has the names of Marcus Aurelius and Commodus. Plans and elevations of many buildings are given, as well as photographs of existing structures. In Division III (pp. 131–223) Enno Littmann, David Magie, Jr., and Duane Reed Stuart publish 291 inscriptions, chiefly Greek.

ASIA MINOR

Hittites and Χεταίοι. — In Z. Assyr. XXVIII, 1913, pp. 61-66, E. Klauber and B. Landsberger criticise the view expressed by E. F. Weidner in Babyloniaca, VI, 164-179, that the Χεταΐοι mentioned in a Greek translation of the Persian author Samspuchares are identical with the Hittites, and that from this source information may be gathered in regard to the Hittite calendar. They show that in mediaeval documents and in modern Russian Khitai is the name of North China and that the Χεταΐοι of Samspuchares were probably inhabitants of that region.

The Greek Camp and the Battlefield before Troy. - At the November (1912) meeting of the Berlin Archaeological Society, A. Brueckner presented arguments to show that the ship-camp of the Greeks before Troy was not on the north coast, at the mouth of the Scamander, but on the beach now known as Besick Bai, on the west coast opposite Tenedos. This position, with the marshy course of the Scamander lying directly across the road to the city, and with a plain suitable for fighting on either side of this watercourse, both toward the city and toward the sea, is much better suited to the Homeric descriptions of the movements of the armies, especially the advance of the Greeks in B, preceding the Catalogue, where the five elaborate comparisons depict five stages of the advance. The tradition that the encampment was at the mouth of the river cannot be traced back much beyond the fifth century, and may be due to a narrowing of the meaning of Hellespont (ἐν πλατεῖ Ἑλλησπόντω, cf. H 86, P 432) from its original application to the whole of the northern Aegean. Even the so-called tumuli of Ajax and Achilles show no evidences of early origin. The conspicuous mounds to which those names must apply if the site of Besick Bai is recognized have not been explored, owing to the refusal of a permit by the Turkish government. (Arch. Anz. 1912, cols. 616-632; plan.)

The Theatre at Ephesus.—At the March (1913) meeting of the Berlin Archaeological Society, W. Doerpfeld explained the construction and history, especially of the stage and orchestra, of the theatre at Ephesus, which is the subject of the recently published second volume of the work on Ephesus by the Austrian Archaeological Institute. In its present state the building presents the picture of a large Graeco-Roman theatre of the usual Asia Minor type, and corresponds with Vitruvius's scheme of the Greek theatre. It has a conistra of somewhat more than a half circle, a high stage under which are columns and doors opening on the conistra, and above, the remains of the stage building of several stories; the seats of the audience reach down only to the level of the stage. Three earlier steps in the development can, however, be traced, corresponding to those of the Dionysiac and other large theatres. At the time of the third building, about 100–50 B.C., the original circular shape of the orchestra was modified,

the lower rows of seats removed, and a high stage built. The Hellenistic proscenium had been made of wood or with large wooden panels, for acoustic purposes. The top of the marble proscenium was decorated with permanent sculpture, vases and the like, hence was not used by the actors. The large doors of the upper story of the *skene* were made to accommodate the winged cars or other apparatus on which the gods were wont to appear. (Arch. Anz. 1913, cols. 37-42.)

The 'Ασυλία of Teos. — In Klio, XIII, 1913, pp. 137–159, M. HOLLEAUX shows that the visit of the Teian ambassadors Apollodotus and Colotes to Crete, as a result of which certain Cretan cities passed decrees recognizing the inviolability of Teos, took place in the year 201 B.C. Perdiceas, the agent of Philip V, was in Crete the same year. The Romans recognized the ἀσυλία of Teos in 193, probably to oblige Antiochus, who was then master of the town.

The Erythraean Sibyl. — In Ath. Mitt. XXXVIII, 1913, pp. 1–22, P. Corssen discusses the problem of the Erythraean Sibyl.

Notes on the Kúp β is of Chios. — In Eranos, XIII, 1913, pp. 91–99, E. Nachmanson publishes notes on the $\kappa \acute{\nu} \rho \beta$ is or pyramidal-shaped stone inscribed with laws found on the island of Chios in 1907.

The Είσαγωγεῖς of Samos. — In Ath. Mitt. XXXVIII, 1913, pp. 51-61 B. Laum argues that the εἰσαγωγεῖς mentioned in an inscription from Samos published, ibid. XXXVII, p. 216, were a collegium of importers of grain.

Early Cults on Coins of Asia Minor. — In *Nomisma*, VIII, 1913, pp. 1–22 (2 pls.), F. IMHOOF-BLUMER describes and discusses certain very early cults in Asia Minor, the numismatic evidence for which, however, comes to us mostly from the Roman imperial period. Among the types figured (all feminine but one doubtful Attis) are four of Aphrodite, thirteen of Artemis, nine of Hecate, two of Core, three of Cybele, and one of Canephorae or Licnophorae.

Coins of Hierapolis.— An article by Leo Weber in *Num. Chron.* 1913, pp. 1–30 (4 pls.), is the first of a series on the coinage of Hierapolis, in Phrygia, with the purpose of giving a complete survey of the cults existing at that place, and of recording the types connected with them. The coins described do not form a complete *corpus*, but the attempt is made to include every type of importance.

Neo-Phrygian Inscriptions. — Six more tomb inscriptions in the neo-Phrygian language and in the Greek alphabet, two of them with an accompanying Greek inscription, are published and discussed by W. M. CALDER, J.H.S. XXXIII, 1913, pp. 97-104.

GREECE

ARCHITECTURE

The Hypaethral Temple. — In R. Arch. XX, 1912, p. 397, R. DE LAUNAY adds to his articles in previous numbers of the R. Arch. the remark that the recent excavations at Samos have shown that the Heraeum was not hypaethral, but was of the same type as the Didymaeum. In Berl. Phil. W. February 1, 1913, cols. 155–159, G. T. Hoech argues that hypaethros does not mean without a roof, but open to the air. There was no roofless Greek temple.

The Tholos at Delphi. — In Klio, XIII, 1913, pp. 131-133, M. SCHEDE points out that the Tholos at Delphi was a long time building; that some of the metopes date from about 400 B.C. and others from about 360; and there is probably about that difference in date between the earlier and the later sima of the building. He rejects Pomtow's theory (see A.J.A. XVII, p. 107) that one architect, Theodotus, designed this tholos and the temple and thymele at Epidaurus.

The Ionic Temple near the Tholos at Delphi. — In Klio, XIII, 1913, pp. 199-248 (58 figs.), H. Pomtow discusses the remains of a small Ionic temple near the Tholos at Delphi and attempts a restoration of the building. It was erected about 550 B.c. The two columns with palm-leaf capitals are an imitation of those in the treasury of the Clazomenians, and it is probable that the same architect designed both buildings.

SCULPTURE

The Pediment of Corcyra. — Under the title Zum Giebel von Korkyra (4 pp.; reprinted from Nachrichten der K. Gesellsch. der Wiss. zu Göttingen) C. Robert points out that the figures of the archaic pediment at Corcyra are treated like metopes. Medusa and her two sons, Pegasus and Chrysaor, have no connection with the figures at the ends of the pediment. This is the oldest pediment group in existence, and the same principle of decoration is found here that occurs on the vases, i.e. a number of independent scenes represented together.

The East Frieze of the Treasury of the Chidians. — In Jh. Oest. Arch. I. XIV, 1911, Beiblatt, cols. 119-122 (2 figs.), A. Schober shows by the positions of the pry holes that certain slabs of Homolle's "Treasury of the Chidians" at Delphi are not correctly placed by him. The corner fragment with the groom and led horse (Fouilles, IV, pls. xi-xii, 1, left), and the fragment with the fore part of the horse of a chariot group (ibid. right) were not parts of the same slab.

Parthenon Metopes. — In Jh. Oest. Arch. I. XIV, 1911, pp. 135-162 (15 figs.) C. Praschniker gives the results of his study of four metopes of the Parthenon made possible by the erection of a scaffold at the northeast corner in 1911. East metope XIV has still preserved on the lower part at the right two fishes, and at the left a water bird. Two horses drawing a chariot are rising from the sea. Their hind legs and most of the chariot are still in the water. The tail of the rear horse was put on in paint. In the chariot was a male figure, undoubtedly Poseidon. Metope I on the north side is comparatively well-preserved. A figure, probably male, is driving a two-horse chariot. The wheel of the chariot was added in bronze. Traces of red paint may be seen in the folds of the garment. This figure may represent Helios. Metope II on the north side is in very bad condition. In the background is the stern of a ship with its rudder and traces of a ladder leading to the shore. A male figure is apparently coming down the ladder holding something in his right hand; and in front of him is a nude male figure. Metope III on the north side represented two figures both apparently male. The one at the left wore a short garment, and the one at the right was standing nude and holding a round shield. The north metopes probably represented an Iliupersis, the design for which the sculptor borrowed from the painting of Polygnotus in the Stoa Poecile.

The Central Scene of the Parthenon Frieze. — In Jh. Oest. Arch. I. XV, 1912, pp. 1–35 (2 figs.) A. v. Premerstein argues that the central scene on the east frieze of the Parthenon is laid in the Agora, and represents the taking of the peplus of Athena from the workshop where it was woven. The locality is indicated by the twelve gods, representing their altar in the market-place, and by the ten bearded men who are the eponymous heroes. He thinks further evidence for the location of the workshop is to be found in the Epithalmium for Polemius and Araneola of Gaius Sollius Appollinaris Sidonius (ca. 430–480 A.D.).

Preservation of the Sculptures of the Parthenon. — In 'A $\rho\chi$. 'E ϕ . 1912, pp. 119–124 (3 figs.) the committee, consisting of A. K. Damverges, G. Soteriades, and O. Rousopoulos, appointed to investigate the condition of the sculptures of the Parthenon, make a report, based upon chemical and microscopic analyses, recommending for some portions preservative washes,

and for others, such as the west frieze, protective plates of glass.

The "Ludovisi Throne" in Boston.—In R. Arch. XXI, 1913, pp. 102-104 (2 figs.), S. R(EINACH) gives a summary of a discourse by Robert Eisler (see Mün. Jb. Bild. K.), in which the reliefs on the "Ludovisi Throne" in Boston are explained, on the basis of Macrobius (I, 21, 1), as representing the joyous and the sad Aphrodite, and the sun-god Adonis rising or falling in the balance. The details are reconcilable with this This myth is said by Macrobius to be of Phoenician interpretation. origin; it is, therefore, easy to connect the reliefs with the altar of Venus at Eryx and to assume that they were transferred to the temple of Venus Erycina at Rome. This interpretation gives us an isolated example of the "continued" style in archaic Greek art, the style in which the same figure (Aphrodite in this instance) is represented at successive moments. In J.H.S. XXXIII, 1913, pp. 73-83 (4 pls.; 4 figs.) E. A. GARDNER argues that there are great contrasts in style, composition, and expression, between the Ludovisi Throne and its Boston counterpart. He thinks that the latter fails to recognize the principles of early Greek relief, caricatures the faces, and mingles late with early technical devices and knowledge; that it is a deliberate imitation of the archaic, and probably made with some fragments of the original "counterpart" before the artist, but whether in late antique or modern times, he is uncertain. "We need not," he says, "confuse and contaminate our impression of the Ludovisi relief, one of the most simple, beautiful, and characteristic works of Greek art in the early fifth century by associating with it, as part of the same original design, the Boston relief, which, in spite of all its technical ingenuity, is full of defects and affectations such as belong essentially to a decadent and imitative age."

The Gate of Zeus at Thasos.—In R. Arch. XX, 1912, pp. 385–393 (2 figs.), Charles Picard publishes the two photographs omitted in the publication of his article, *ibid.* pp. 43–76. There are now five gates known at Thasos (one being the gate of the "Pseudo-Theorion," probably the prytaneum, to which the famous reliefs of Apollo, Hermes, and the nymphs belong), four of which are more or less accurately dated, the latest of these belonging to a time not much earlier than 480 B.C.; the gate of Zeus must, therefore, be considerably later than 470 B.C. At Thasos, swallow-tail clamps, fastened with a square iron pin, are always archaic, though they seem to have been used at Delos much later.

The Sculptures of the Later Temple of Artemis at Ephesus.— The sculptured drums, pedestals, gutters, and other fragments from Ephesus now in the British Museum are discussed in some detail by W. R. LETHABY in J.H.S. XXXIII, 1913, pp. 87–96 (4 figs.): He points out the striking resemblance, first noted by Sir F. Burton in 1873, between the figure of "Persephone" on the Hermes drum and the Eirene of Cephisodotus, that of the Nereid sculptures to the Nereids of Timotheus at Epidaurus, and many other likenesses to work at Epidaurus, in the temple of Victory at Athens, and elsewhere, and to sculpture of the Praxitelean period in general. On the whole he concludes that the Ephesian temple was built certainly before 330, and was, perhaps, twenty or thirty years in building, the roof dating from about 345–340 B.C. The reliefs thought by Wood to be parts of a frieze are seen to have formed square pedestals, over six feet in diameter, which probably took the place of the sculptured drums as the bases of the outer row of columns at the west front of the temple.

A Votive Relief from Aegina. — In 'A $\rho\chi$.' E ϕ . 1912, pp. 254 f. (pl.), I. N. Svoronos publishes a votive relief of the fourth century B.C. found on Aegina near the ancient precinct of Apollo, representing Apollo Citharoedus pouring a libation over an *omphalos*, on which stand two eagles, and on the opposite side of which stands a male worshipper. This group is exactly duplicated on a coin of Megara, the obverse of which bears the head of Septimius Severus. It seems probable that there were identical statues and reliefs in Megara and in Aegina, which these two reliefs respectively represent, and that copies of the Omphalos at Delphi existed in Pythian sanctuaries in various Greek states (cf. Svoronos, J. Int. Arch. Num. 1911, pp. 301–316).

A Relief from Delos. — In C. R. Acad. Insc. 1912, pp. 641-644, M. Besnier points out that a relief about which Baudelot de Dairval read a paper before the Académie des Inscriptions in 1706 is preserved in the museum at Aix en Provence (cf. Reinach, Répertoire de reliefs, II, p. 211, No. 2).— It represents a nude youth wearing a hat and leading a horse in front of a shrine, while a woman in long chiton follows him.— It came originally from Delos and dates from the fifth or fourth century B.C.

. Figures of the Dead on Attic Grave Reliefs.—Under the title, On the Relation between Inscriptions and Sculptured Representations on Attic Tombstones (49 pp.; reprinted from Bulletin of the University of Wisconsin, Philology and Literature Series, Vol. 5, No. 2, pp. 99-148), HAROLD R. HASTINGS collects the evidence to prove that the deceased is actually represented on the Attic grave reliefs.

Greek, Roman, and Byzantine Sculptures in Constantinople.—M. Gustave Mendel has done a valuable service to classical archaeology in compiling a full catalogue of the Greek, Roman, and Byzantine sculptures in the Imperial Museums of Constantinople. The first volume has already appeared, and the second, which will complete the catalogue, is announced as nearly ready. The method followed by the author is to give an account of the discovery of each monument, its condition and other details, then to give a full description of it, and finally a bibliography. Volume I, which has to do with the vestibule and the first six rooms, has 256 different items. [Musées impériaux ottomans. Catalogue des sculptures grecques, romaines et byzantines. Par Gustave Mendel. I. Constantinople, 1912, Musée Impérial. xxii, 596 pp.; 285 figs. 8vo. 80 piasters.]

A Marble Head in Cyprus. — A head from one of the archaic "Apollo" statues, which was probably found at Laphethus some twenty years ago, has lately been acquired by the Cyprus museum and is now installed in the new building. The head is life-size and less archaic than most of the class, standing between the Strangford Apollo and the Ptoan Apollo at Athens, and may be assigned to a Peloponnesian school, of the first quarter of the fifth century. Laphethus was a Lacedaemonian colony. (M. MARKIDES, J.H.S. XXXIII, 1913, pp. 48-49; pl.)

Aristogiton. — A herm-head found at Baiae, now in the British Museum, resembles the head from Madrid which has for some years been regarded as representing the original head of Aristogiton in the group of the Tyrannicides at Naples, but is less chiselled down and altered; and when the shoulder locks, which are only a means of adapting it to the herm-form, are removed and it is set on the Aristogiton torso, it makes a consistent and satisfactory whole, from which we can fairly judge the general style of the artists Critius and Nesiotes. Some eight or ten other works, including the Zeus of the Zeus and Hera metope from Selinunto, can be added to Furtwaengler's list of related works. (B. SCHROEDER, Jb. Arch. I. XXVIII, 1913, pp. 36–34; 11 figs.)

Myron's Discobolus. — The variations in extant copies and imitations of Myron's Discobolus, with the principles which should govern any attempt at a restoration, were discussed by B. Schroeder and others at the November (1912) meeting of the Berlin Archaeological Society. Schroeder would discard the apparently impossible position of the left foot, with the toes turned under, which most representations show, for the flat-placed foot of the Castel-Porziano replica, and would keep the fingers of the right hand spread and holding the discus only by the tips. Professor Loeschcke opposed these views, maintaining the soundness of the plastic tradition. (Arch. Anz. 1912, cols. 614–616.)

The Athena Promachos.—In R. Ét. Gr. XXVI, 1913, pp. 20-25, C. HADACZEK argues that the torso of Athena in the Académie des Beaux-Arts, Paris, is, as Lange thought, a copy of the Athena Promachos of Phidias. It should be completed with lance and shield in the left hand and the owl resting on the right hand. Such an Athena is represented on one of the medallions from Aboukir.

The Cybele of Agoracritus. — Starting with a seated statue of a goddess in Athens, recently published by M. Bieber (Ath. Mitt. XXXVII, 1912, pp. 251 ff.; A.J.A. XVII, 1913, p. 280), and a similar figure from Pergamon in Berlin, A. v. Salis shows that these belong to a large class of figures imitated from the statue of Cybele made by Agoracritus toward the end of the fifth century. He traces the very far-reaching influence of this statue down into post-Christian times and as far afield as Gaul, and the use of the type, with various attributes, for other divinities, as Demeter, Fortuna, Abundantia. In Roman times, the position of the disk or tympanum held in the left hand was changed from above the arm, as resting on it, to below, as supporting it. A late and bad variation is seen in a statue in the Villa Doria-Pamphili, in which the mantle, instead of lying heavily across the lap, is held up at the left shoulder by the hand, in a style suitable only for a standing figure, such as the Athena Albani. Agoracritus himself found the conception of a majestic seated figure already existing in the Asia Minor

home of the goddess, and adapted it to the temper of the Greeks by eliminating its more savage features, including the small lion on the lap. The lion or lions were, however, retained in the Ionian reliefs and their imitations, which got their type from the same source by a different channel. The naïscos which the small reliefs always have, and the position of the statues close against a wall, are survivals of the original idea of the goddess as dwelling in the interior of a mountain. In the rock-sculptures of Asia Minor she is represented as seated just within the open door of a façade. As to the individual style of the artist, the imitations of this figure in relief on the frieze of the Erechtheum and the base of the Nemesis at Rhamnus are the best evidence, being the nearest in date. (Jb. Arch. I. XXVIII, 1913, pp. 1–26; 10 figs.)

A "Polyclitan" Bronze in the Louvre.—In R. Arch. XXI, 1913, pp. 214–226 (fig.), André Boulanger discusses the bronze statuette in the Louvre, formerly in the Pourtalès (No. 672) and Gréau (No. 964) collections (cf. Duruy, Hist. des Grecs, II, p. 350; Furtwängler, Meisterwerke, p. 490; Mahler, Polyklet u. seine Schule, p. 57, fig. 13, pp. 58 f.; De Ridder, Revue de Paris, 1912, VI, p. 158). The beautiful little figure represents a youth, nude, with the weight on his right foot. The left hand should be restored holding a patera, or phiale, the right holding an oenochoe. The style is Polyclitan, but belongs to the last years of the fifth century B.C., with the Diadumenus of Madrid, the Idolino, the Pan at Leyden, and other works, chief of which is the Westmacott athlete. That was the time of the sculptor Aristides, of whom we know only that he was the pupil of Polyclitus and the teacher of Euphranor.

A Torso of the Apollo Sauroctonos. — In Mon. Piot, XIX, 1911, pp. 161–170 (pl.), A. HÉRON DE VILLEFOSSE publishes a marble torso of a replica of the Apollo Sauroctonos acquired by the Musée Calvet, Avignon, in 1833. It probably came from Melos and is of excellent workmanship.

Statue of Bellerophon at Smyrna. — In R. Arch. XX, 1912, pp. 330–333, Salomon Reinach calls attention to a passage of Cosmas of Jerusalem in his commentary on the poems of St. Gregory of Nazianzus (Migne, P.G. XXXVIII, p. 547). A statue of Bellerophon is described, and the figure of Pegasus is said to be so slightly fastened that it follows the gentle motion of the hand, though it resists violent pressure. A manuscript in Madrid (Pauly-Wissowa, s.v. Belleropho, col. 247) mentions an iron statue of Bellerophon and his horse at Smyrna, hung in the air. This is evidently a development from the first description. Descriptions of other statues hung in the air by means of magnets are cited. Such statues never existed, but the existence of an important statue of Bellerophon at Smyrna is interesting.

Greek Portrait Statues.—G. Lippold publishes as his Habilitation-schrift at the K. Ludwig-Maximilians University, Munich, a study of Greek portraiture from the sixth century B.C. to Roman times. He shows how certain characteristics prevail at certain periods, making it possible to date a given statue approximately; but except in rare cases it is not possible to identify the artist from the style of the statue. [Griechische Porträtstatuen. Der Philosophischen Fakultät der K. Ludwig-Maximilians-Universität zu München als Habilitationschrift vorgelegt von Georg Lippold. Munich, 1912, Bruckmann. 109 pp.; 24 figs. M. 4.]

A Statue of a Hellenistic King. - A colossal limestone statue in the

Cairo museum, found in 1911 at Atfeh, the city of Hathor, forty-five miles south of Cairo, is published by C. C. Edgar, J.H.S. XXXIII, 1913, pp. 50–52 (pl.). It is a nude male figure, standing in a heroic attitude, with an aegis on the left arm and a diadem in the hair. Both forearms are missing, but the part that remains suggests that the raised left hand rested on a spear. The head is distinctly a portrait, and so closely resembles coin types of Ptolemy II, Philadelphus, as to make it probable that he is the king represented, " $\Xi a\nu\theta o\kappa \delta \mu as$ $\Pi \tau o\lambda \epsilon \mu a los \delta \epsilon m los \delta \delta \rho v m a k los king represented,"$

Hellenistic Bronzes from Egypt. — In Jh. Oest. Arch. I. XV, 1912, pp. 76–80 (8 figs.), F. W. v. Bissing publishes three small bronzes from Egypt in his own collection. These are: (1) a nude Heracles, 6.8 cm. high, rising from the stem of an acanthus leaf, and holding his club over his right shoulder and perhaps an apple in his left hand, possibly part of a candelabrum of Hellenistic date; (2) a small Nemesis, 6.7 cm. high, of Roman date; (3) a barbarian prisoner with hands tied behind his back, 7.5 cm. high, of Hellenistic date.

The Supports of Ancient Statues. — The supports of ancient statues, and especially attributes attached to them, are treated in detail by ADA MAVIGLIA, Röm. Mitt. XXVIII, 1913, pp. 1-91.

VASES AND PAINTING

A Minoan Vase from Egypt. — In Ann. Arch. Anth. V, 1913, pp. 107–111 (2 pls.), J. Garstang publishes a vase of the Middle Minoan II period, found at Abydos in 1907. All the other objects in the tomb, more than one hundred in number, date from the twelfth dynasty. Among them were cylinders of Senusret III and Amenemhat III. There can be no doubt that the vase is as old as the other contents of the tomb.

A Cylix by Douris.—In R. Arch. XXI, 1913, pp. 31-40 (3 figs.), Oskar Waldhauer publishes a hitherto unknown cylix with the inscription . . . ς $\xi\gamma\rho\alpha\phi\sigma\epsilon\nu$, to be restored with the name of Douris. On the outside are two scenes of the palaestra; in the inner circle a bearded paidotribes. Style and workmanship are those of Douris, and the vase must be placed with other vases by Douris embellished with similar representations. These all belong to the time of the decline of the artist's career, when he was trying, without entire success, to conform to the progressive tendencies of a new period. The newly published cylix is in the possession of Count-Alexander Orloff Davydoff at St. Petersburg.

The Master of the Dutuit Oenochoe.— Fourteen small red-figured Attic vases, apparently by the same hand, are collected by J. B. BEASLEY in J.H.S. XXXIII, 1913, pp. 106–110 (5 pls.; 3 figs.). The style has delicacy and charm rather than strength; the subjects are Dionysiac and mythological, often with animals introduced. The vase at the Petit Palais in Paris, from which the series is named, and one other, show an amusing reminiscence of the Potnia Therôn motive, in a neat little damsel with wings, who carries a bow in one hand and gently caresses a fawn with the other.

"Ιππαρχος καλός. — In Berl. Phil. W. May 3, 1913, cols. 574-575, E. E. Briess calls attention to an alabastron sold at auction in London in December, 1912, which bears the inscription "Ιππ[αρχ]ος καλὸς ναι[χί].

Paris and Helen on a Vase in Naples. — In Neapolis, I, 1913, pp. 6-18 (5 figs.), N. Terzaghi discusses a vase in the Naples museum (Heydemann, No. 1982), upon which Paris appears in conversation with Heleu, who is attended by a maid; and above are Zeus and Hermes in conversation and at the left a seated Phrygian. He argues that the painter had in mind the story of Stesichorus, in which Zeus commands Hermes to convey Helen to Egypt and sends a phantom Helen to Troy with Paris.

A Memnon Vase. - Pieces of a red-figured lutrophorus which has, instead of the usual wedding scene, some negroes fighting, probably a scene from the Memnon episode, were shown by A. Brueckner at the February (1913) meeting of the Berlin Archaeological Society. (Arch. Anz. 1913,

col. 35.)

Lenaea or Anthesteria. - The views set forth by A. Frickenhaus in the 72d Winckelmanns-programm (A.J.A. XVII, 1913, p. 294), that certain Dionysiac vase paintings represent the ceremonies of the Lenaea, were opposed by E. Petersen, and defended by their author, at the January (1913) meeting of the Berlin Archaeological Society. Petersen maintained the old view, held by Otto Jahn fifty years ago, that the subject is the Anthesteria. (Arch. Anz. 1913, cols. 32-33.)

The "Busti" in Vase Paintings. — The so-called busti in vase paintings are explained by P. Kurth in Neapolis I, 1913, pp. 48-67 (2 pls.; 8 figs.), not as being attempts to show persons upon a high level or at a greater distance than others in the field, but as due to a conventional method of abbreviating figures for which the space would otherwise be insufficient.

Notes on Two Stelae from Pagasae. — In R. Arch. XXI, 1913, pp. 19-24 (fig.), A. Reinach finds that in the painting of the young woman who died in childbirth (Έφ. Άρχ. 1908, pl. I), a dark cloth hangs down from between the bolster and the mattress, and the nurse is drawing back the curtain of the door with her right hand; in the stele of the Cretan Chalcocedes of Lyttus (Πρακτικά, 1907, pl. Γ, 8), that which Arvanitopoullos thought was the sword of Chalcocedes is a part of his chlamys, and his attendant carries two javelins, not a spear; certain other details are discussed.

The Preservation of the Painted Stelae of Pagasae. — In 'A $\rho\chi$. 'E ϕ . 1912, pp. 261 f., A. Damverges and O. A. Rousopoulos report on the proper measures to be taken for the preservation of the Pagasae painted stelae. After careful washing they have been treated with a wash to fix the colors, and it is suggested that they be protected from actinic light rays by means of yellowish windows or screens.

A Clazomenian Sarcophagus at Leyden. — In Jb. Arch. I. XXVIII, 1913, pp. 58-60 (pl.; fig.), J. Brants calls attention to an unusual picture on a fragmentary terra-cotta sarcophagus in the museum at Leyden. It represents a fight taking place around a tumulus, between a warrior armed with a spear and backed by three or four followers on one side of the central object, and another, drawing his sword in defence, and with a woman next him and other figures behind, on the other side. The style is on a level with the developed black-figured or severe red-figured Attic, and it. may be dated in the middle or last part of the sixth century B.C.

INSCRIPTIONS

Attic Inscriptions. — In 'Aρχ.' Εφ. 1912, pp. 124 f., P. N. PAPAGEORGIOU publishes two small Attic inscriptions, one of them engraved upon a strip of bronze. He also suggests a change in punctuation as a solution of the riddle in the much-discussed grave epigram from Piraeus, first published ibid. 1910, p. 73, making the first sentence read Οὐ τὸ χρεὼν εἴμαρται. This same epigram is discussed again, ibid. 1912, pp. 256 f., by A. N. Skias, who defends his interpretation (ibid. 1911, p. 207) against the criticism of the late S. Vases (ibid. 1911, p. 211), and by Papageorgiou, ibid. 1912, p. 264, who makes a brief comment on the above article of Skias.

Notes on an Attic Inscription. — In *Berl. Phil. W.* March 8, 1913, cols. 317–320, W. Bannier discusses and proposes restorations for *C.I.A.* IV, 1, 52–53, the treaty between the Athenians and Bottiaeans.

Historical Attic Inscriptions. — Under the title Historische Attische Inschriften (Bonn, 1913, A. Marcus and E. Weber's Verlag. 82 pp. M. 2. 20), E. Nachmanson publishes eighty-seven Greek inscriptions beginning with the "Salamis decree" of the first half of the sixth century B.c. and ending with an inscription of Arcadius and Honorius dating between 396 and 401 A.D. A brief commentary accompanies each inscription.

A Decree of the Athenians in Honor of Hicesius of Ephesus. — In 'A ρ_X . 'E ϕ . 1912, pp. 248 f. (fig.), A. Wilhelm publishes a decree of the Athenians granting citizenship to Hicesius of Ephesus, who is known, from I.G. VII, 15, to have been governor of Aegina under Eumenes of Pergamon, at some time between 210 and 159 B.C.

Athenian Boundary Stones. — In Jh. Oest. Arch. I. XV, 1912, Beiblatt, cols. 81–96 (18 figs.), T. Sauciuc publishes twenty-one Athenian boundary stones preserved in the Epigraphical Museum at Athens.

Notes on Inscriptions from Euboea. — In 'A $\rho\chi$.' E ϕ . 1912, pp. 234–248 (2 figs.), A. Wilhelm points out various errors made by G. A. Papavasileiou in the publication of inscriptions from Euboea, *ibid*. 1905, and gives further proof that the fragment of an inscription published by the latter, (*ibid*. 1907, p. 23) and one published by Wilhelm (*ibid*. 1892, p. 158, No. 53) both from Aliverion, are parts of the same document, in spite of the arguments of Papavasileiou, *ibid*. 1911, pp. 81 f.

Notes on Delian Accounts.—In R. Et. Gr. XXVI, 1913, pp. 26–39, G. GLOTZ publishes notes and restorations to the following Delian inscriptions recently published in I.G. IX, Fasc. II: Nos. 138 B, 142, 144 A, 145, 148, 156 A, 158 A, 159 A, 161 A, 162 A, 163 A, 165, 199 A, 201, 203 A, 204, 219 A, 224 A, 226 A, 240, 268, and 274.

The Dedication of the Charioteer at Delphi.—In Jb. Arch. I. XXVIII, 1913, pp. 52–58 (facsimile), A. FRICKENHAUS discusses, in connection with the chronology of the sons of Deinomenes, the altered inscription on the base of the charioteer at Delphi. By eliminating other suggested restorations, he concludes that the original dedicator was Polyzalus, the same who is named in the surviving part of the second form of the inscription, and that the change was occasioned by the elder brother, Hiero, perhaps jealous of a victory which was a defeat for himself, objecting to the claim made by the words $\Gamma \dot{\epsilon} \lambda a_5 \dots \dot{a} \nu \dot{a} \sigma \sigma \omega \nu$. Polyzalus may very well have been in possession of Gela in 474, the most likely date for his Delphic victory, al-

though no record of the fact has come down. The two versions, so far as they can be restored, are then to be read as follows:

- Ι. [μνᾶμα Πολύζαλός με Γ] έλας ἀνέθηκεν ἀνάσσ[ον [hνιὸς Δεινομένεος τ]ὸν ἄεξ' εὐόνυμ' 'Απόλλ[ον
- II. [... (16 letters) ... II] ολύζαλός μ ἀνέθηκ [εν [hviòs Δεινομένεος τ] ὸν ἄεξ εὐόνυμ ᾿Απόλλ [ον

A Locrian Inscription. — In Jh. Oest. Arch. I. XIV, 1911, pp. 163-256 (6 figs.), A. Wilhelm discusses an inscription found some years ago near Vitrinitsa in Locris. It is an agreement between the Αἰάντειοι, or descendants of Ajax, and the town of Naryca on one side, and the Locrians on the other, in reference to the maidens sent to Ilium in atonement for the outrage committed by Ajax on Cassandra at the taking of Troy. The inscription probably dates between 275 and 240 B.C. At the January (1913) meeting of the Berlin Archaeological Society P. Corssen discussed the inscription. He pointed out that the supposed expiatory origin of the custom, atoning for the sacrilege of Ajax, is a comparatively late invention, not earlier than 334 B.C. The custom itself probably originated subsequent to the founding of Novum Ilium, after the repulse of the Cimmerian invaders by the Lydiaus, and was due to the existence of a cult of Athena Ilia at Opuntian Locris. There was a break of about forty years after 346, and when the sending was renewed, the women went for lifelong instead of annual service. (Arch. Anz. 1913, cols. 31-32.)

Thessalian Inscriptions. — In 'A $\rho\chi$.' E ϕ . 1912, pp. 60–101 (35 figs.), A. S. Arvanitopoullos continues his publication of inscriptions from Gonnus, Thessaly (cf. *ibid*. 1911, pp. 123–128 and 129–149), describing seventy-six decrees of *proxenia* of the common type, of which twenty employ a full, fifty-six an abbreviated, formula. These contain many new names and give much important information on Thessalian history in the second century B.C. *Ibid*. 1912, p. 265, the same writer publishes a few brief supplementary notes and corrections to I.G. IX², 1295, 1296, 1300.

A Rhodian Chronicle. — At the March (1913) meeting of the Berlin Archaeological Society, U. v. Wilamowitz-Moellendorff discussed the remarkable inscription found by the Danes in their excavations at Lindus and now at Copenhagen, which had recently been published by C. Blinkenberg (Bulletin of the Royal Academy of Sciences and Letters of Denmark, 1912, pp. 317–457). It gives a list of priests and a résumé of the history and documents of the temple, with accounts of the temple treasures, drawn up in the year 99 B.c. by Timachides, probably the grammarian of that name. The earlier votive offerings were no longer in existence at that time, having been burned with the old temple in 350 B.c. Much of the matter of the chronicle is Hellenistic invention, but has an interest as such. (Arch. Anz. 1913, cols. 42–46.) In R. Ét. Gr. XXVI. 1913, pp. 40–46, M. Holleaux publishes a number of restorations to the "chronicle."

Two Inscriptions in Smyrna.—In Jh. Oest. Arch. I. XIV, 1911, Beiblatt, cols. 123-134 (2 figs.), J. Keil publishes two badly mutilated inscriptions in Smyrna evidently referring to certain exemptions from taxation. In one the beginning of the letter of Antony, the triumvir, to the "Koinon" of Asia, known from a papyrus (Cl. R. VII, p. 476), occurs. They probably refer to the society of the Hieronicae and Stephanitae.

An Inscription referring to Mysteries.—In Jh. Oest. Arch. I. XIV, 1911, Beiblatt, cols. 133–140, J. Keil publishes an inscription from Cyme, now in Smyrna, which refers to the practice of certain mysteries. It probably dates from the first half of the first century A.D.

Three Greek Inscriptions. — In Sitzb. Kais. A kad. d. Wiss. in Wien, 166, 3, 1912, pp. 1–43, A. Wilhelm discusses and partially restores three Greek inscriptions: (1) the treaty between Termessus and a town probably to be identified as Adada (B.C.H. XXIII, pp. 286 ff.); (2) the introduction to an agreement between the people of Ios and Rhodes dating from about 200 B.C. (I.G. XII, 5, 1, n. 8 and XII, 5, 2, p. 303, n. 1009); (3) a decree of the Thasians with reference to the people of Neapolis (I.G. XII, 8, 264).

Greek Inscriptions in Stockholm. — In Eranos, XIII, 1913, pp. 83-90, K. Thunell discusses sixteen Greek inscriptions in the museum at Stockholm of which ten were published in C.I.G.

Two Greek Inscriptions from the Sanctuary of Aesculapius on the Esquiline. —In Rend. Acc. Lincei, XXI, 1912, pp. 236-250 (pl.), A. MAIURI discusses two Greek inscriptions on the base of an ex-voto of Boethus representing the infant Aesculapius, set up by the physician Nicomedes in the sanctuary of Aesculapius on the Esquiline. The base was found in 1667 near the church S. Martino ai Monti and has been buried away since 1834 in the Palazzo Medici (Falconieri) so that the errors in the earlier publications have until now gone uncorrected. The correct dating of the inscription is important for the light it sheds on the date of the temple of Aesculapius which was founded or possibly rebuilt by Diocletian in the Baths of Trajan. It can hardly be later than the second century A.D. The same Nicomedes is referred to in C.I.G. 6265. Another inscription found at about the same time in the same place may refer to this temple, so that we may infer that it was rebuilt, not founded, by Diocletian. The inscription may be a rewriting of an older original; and the statue was very likely a copy.

Thracian Inscriptions. — In R. Arch. XX, 1912, pp. 394–396, Charles Picard restores the inscription published by G. Seure [ibid. XVIII, 1911, p. 444) δ δείνα] εὐξάμενος Σαλυμβριανοῖς [θεοῖς ἀνέθηκεν]. Ibid. pp. 423 ff. the Ἐλευθερεύς mentioned is simply the Dionysus of Eleutherae, adopted from Attica.

An Inscription from Istrus.—In Jh. Oest. Arch. I. XIV, 1911, Beiblatt, cols. 149–154, J. Weiss discusses the inscription on the base of a statue dedicated to Poseidon by the $\Pi o\nu \tau \acute{a}\rho \chi \eta s$ $\tau \mathring{\eta} s$ $\Pi \epsilon \nu \tau a\pi \acute{o}\lambda \epsilon \omega s$ at the Milesian colony of Istrus on the Black Sea.

Πομπαΐος Στρατηγός.—In R. $\dot{E}t$. Gr. XXVI, 1913, pp. 47-52, E. E. Briess argues that the supposed title πομπαΐος στρατηγός of Boeckh, C.I.G. 3348, is really a proper name, i.e. Πομπηΐου Στρατήγου Εὐτύχους. The inscription is not earlier than 123 A.D.

Epigraphical Notes.—In 'A $\rho\chi$. 'E ϕ . 1912, pp. 250-253, A. Wilhelm makes various comments and corrections on eleven inscriptions published *ibid*. 1911, *passim*.

COINS

Temple Coins of Olympia. — C. J. Seltman (following G. F. Hill) would ascribe all the coins usually classified as Elean to the temple of Zeus

at Olympia. The first part of his detailed discussion and description is published in *Nomisma*, VIII, 1913, pp. 23-65 (4 pls.).

Coins of Callatis.—Several previously unpublished coins of Callatis, Thrace, from his own collection are described and pictured by Leon Ru-

ZICKA, Z. Num. XXX, 1913, pp. 293-304 (5 pls.).

The Coinage of the Ionian Revolt.—A new find of coins at Vourla (Clazomenae) confirms some former conjectures as to the coinage of the Greek towns in Asia Minor at the time of the Ionian revolt. The new coins are twenty-six electrum staters and hectae, including one stater from Priene, and twelve silver hectae from Samos. (P. GARDNER, J.H.S. XXXIII, 1913, p. 105.)

Greek Coins of Asia.—V. TOURNEUR discusses in a recent article the Greek coins of Asia comprised in the collection of Franz Cumont recently presented to the *Bibliothèque royale* (Belgium). The writer often corrects and supplements the information contained in the handbooks. (R. Belge

Num. LXIX, 1913, pp. 109-137; pl.)

Tetradrachms of Syracuse. — Almost an entire double number of Z. Num. (XXX, 1913, pp. 1–292; 7 pls.) is taken up by an article from L. Tudeer on the tetradrachm-coinage of Syracuse in the time of the artist-signatures. The writer takes full and generous cognizance of the important work of his predecessors in the field, but points out the need of a newer and exhaustive investigation, especially on the basis of the impressions. The article is too long to admit of brief summary: it may be remarked on one point, however, that Tudeer essays to prove beyond question that the signatures EVMHNOV and EVMENOV designate different artists, and that the abbreviation EV denotes still a third, whose full name is, and will remain, unknown. But EVM is perhaps for Eumenes.

Elpis-Nemesis. — The British Museum possesses a circular limestone disk (diameter 11.4 cm., thickness 1.9 cm.) the two sides of which are moulds for the casting of medallions. On one side is a figure in the usual attitude of Spes, with wreath and palm branch in the ground, and the words $\mathsf{EX\Omega}$ $\mathsf{E} \land \mathsf{TI} \mid \Delta \mathsf{A} \mathsf{S} \mid \mathsf{KA} \land \mathsf{A} \mathsf{S}$. On the other is a female gryphon with uraeus tail and paw resting on a wheel, and with the inscription $\mathsf{NEMES} \mathrel{\mathsf{IS}} \mathsf{S} \mid \mathsf{KEA}$. The types and letters point to an Alexandrian origin and a date in the second or third century $\mathsf{A.D.}$ Nemesis in the form of a gryphon, the symbol of sharpsighted watchfulness, confirms a conclusion of P. Perdrizet (B.C.H. 1912, p. 248), but the epithet here given her is far from clear. The interpretations suggested for the sign S include a reversed Z for $\mathsf{\Delta}$, not unknown in dialects ($\mathsf{C}\mathsf{U}\mathsf{K}\acute{e}a = \mathsf{D}\mathsf{U}\mathsf{K}\acute{a}a$) and a twisted N ($\mathsf{U}\mathsf{K}\acute{e}a = \mathsf{U}\mathsf{K}\acute{a}a$) as if the medal were a talisman for competitors in games. (F. H. Marshall, J.H.S. XXXIII, 1913, pp. 84–86; pl.; fig.)

GENERAL AND MISCELLANEOUS

Archaeological Study in Greece. — In Atene e Roma, XVI, 1913, cols. 65-83, S. Lambros publishes a brief history of archaeological study in Greece.

The Asclepieum and the Eleusinium at Athens. — In 'A $\rho\chi$. 'E ϕ . 1912, pp. 43–59 (2 pls.; 15 figs.), F. Versakes traces the outer wall of the Asclepieum and the walls of an earlier sanctuary on the same site, which he identifies as the long-sought Eleusinium. The south wall of the Asclepieum

was later incorporated into the back of the Stoa of Eumenes, the rear wall of the latter being interlocked with it. A portion of the west wall, with the north side of the propylon, is seen in the foundations formerly assigned by Dörpfeld to the monument of Nicias, which has now been located near the southeast corner of the Stoa of Eumenes (cf. Dinsmoor, A.J.A. XIV, 1910, p. 459). The first temple of Asclepius was probably in the western portion of the precinct, near the portal. The older sanctuary lay within the enclosure of the Asclepieum, except on the west, where it appears to have been curtailed. This older precinct must have been the Eleusinium to which Asclepius, when invited to Athens, was admitted as guest and protector, only to establish himself as proprietor and appropriate the whole eastern portion of the Eleusinium, leaving the western portion, near the entrance to the Acropolis, as the Eleusinium of later times.

Monuments on the South Slope of the Acropolis. — In 'A $\rho\chi$ ' 'E ϕ . 1912, pp. 161–182 (6 pls.; 36 figs.), F. Versakes publishes an instalment of an architectural study of the ancient monuments of the south slope of the Acropolis at Athens, describing, with many drawings of details, restorations, etc., the Theatre of Herodes and the Stoa of Eumenes. The identification of the stoa is made certain by its resemblance to the Stoa of Attalus, of which the author makes a new study as a basis for his restoration.

Psyttaleia. — In Klio, XIII, 1913, pp. 128–130, K. J. Beloch refuses to be convinced by Judeich's arguments that Psyttaleia is Lipsokoutala (see A.J.A. XVI, p. 585), and adheres to his theory that it is Hagios Georgios. In Ath. Mitt. XXXVIII, 1913, pp. 31–36, P. D. Rediades takes Beloch to task for not knowing the literature concerning Psyttaleia. It is to be identified with the modern Lipsokoutala. On an early Venetian map the island is called Cytala, a corruption of Psyttale, the name by which Stephanus of Byzantium calls it. From Cytala came the modern name.

Excavations in the Necropolis of Thessalonica.—In Mél. Arch. Hist. XXXII, 1912, pp. 337-361, MM. Avezou and Picard describe the results of excavation in the necropolis of Thessalonica since 1905, thus continuing the accounts previously given by Perdrizet (ibid. XIX, 1899, pp. 541 ff.; XX, 1900, pp. 223 ff.; XXV, 1905, pp. 81 ff.). The material consists principally of inscriptions, terra-cottas, glass, and pottery.

Excavations at Sphoungaras.—In 1910 excavations were carried on under the direction of R. B. Seager at a site known as Sphoungaras, near Gournia in eastern Crete. Here a cemetery was examined containing remains dating chiefly from the period known as Early Minoan II. A small neolithic deposit was discovered, as well as a considerable number of burials in pithoi dating chiefly from Middle Minoan I. The vases, seals, etc., found during the excavations are briefly described by Miss E. H. HALL. [Excavations in Eastern Crete, Sphoungaras. Anthropological Publications of the University of Pennsylvania, Vol. III, Pt. 2, pp. 43–73 (7 pls.; 16 figs.). By Edith H. Hall. Philadelphia, 1912, University Museum.]

The Throne of Apollo at Amyclae. — In 'Aρχ. Εφ. 1912, pp. 183–192 (26 figs.), F. Versakes describes the remains of an ancient structure on the foundations and out of the materials of which was built the church of Hagia Kyriake on the summit of the hill at Amyclae (cf. Πρακτικά, 1907, pp. 52 and 104–107; A.J.A. XIII, 1909, p. 354). The author believes that this structure was the pedestal of the famous Throne of Apollo described by

Pausanias, III, 18 f., and restores it as a hollow square the sides of which are formed by sculptured slabs between half columns, with at least one doorway for access to the tomb of Hyacinthus within. Above this, and appearing to rest upon the roof of the pedestal, was the throne itself and the primitive image.

The Great Altar of Zeus at Olympia. — In Jb. Kl. Alt. XXXI, 1913, pp. 241–260 (3 figs.) L. Weniger argues that the excavations of Dörpfeld in 1908 between the temple of Hera, the Pelopion and the Metroon at Olympia have not revealed the site of the great altar of Zeus. That must be sought to the east of the south end of the Pelopion, probably halfway between the temple of Zeus and the Metroon. He suggests a restoration in two forms, one oblong and one square. The altar did not date back to as early a period as has been thought.

The Stage Building of the Roman Theatre at Gytheum. — In 'Ap χ ' E ϕ . 1912, pp. 193–196 (9 figs.), F. Versakes discusses the stage building of the Roman theatre at Gytheum, which he restores with four small porticoes facing the cavea, having two tiers of columns.

The Site of Iolcos. — In Ath. Mitt. XXXVIII, 1913, pp. 23–28 N. I. Giannopulos argues that ancient Iolcos was located on the hill at Volo, that it was never completely abandoned, but was inhabited in Roman times and down through the Middle Ages, preserving its ancient name in the form Golos or $K\acute{a}\tau\omega$ $\Gamma \acute{\omega}\lambda os$.

Prehistoric Seals from Thessaly.—In Ath. Mitt. XXXVIII, 1913, pp. 29–30 (2 figs.), N. I. Giannopulos publishes a small terra-cotta seal impression with a meander pattern from Tsangli, Thessaly. It dates from the second neolithic period. He also publishes a black steatite seal with a meander pattern.

Cretan Seal Stones. — In 'A $\rho\chi$. 'E ϕ . 1912, pp. 257–260, W. O. GAERTE publishes supplementary notes to the article on Cretan seal stones by Xanthoudides, *ibid.* 1907, pp. 141 ff.

The Pelasgians. — In Rend. Acc. Lincei, XXI, 1912, pp. 282–293, V. Costanzi discusses the origin of the ancient concept of autochthony and pre-Hellenicism attributed to the Pelasgi. He agrees with E. Meyer that the name Pelasgi was originally applied to the inhabitants of the northeast part of Thessaly (Pelasgiotis), and then owing to the combinations of logographers came to be used as equivalent to pre-Hellenic or proto-Hellenic. Fick's theory that the Leleges were the pre-Hellenic inhabitants of western Greece and the Pelasgi those of eastern Greece he thinks incorrect, as also Ridgeway's idea that the Pelasgi represent the Mycenaean civilization. He believes they were of Hellenic stock. He discusses the rise of the fifth century conception (e.g. that of Hellanicus, and Pherecydes) that the Thessalian Pelasgi came from Peloponnesus.

Some Known and Unedited Monuments. — In R. Arch. XX, 1912, pp. 350-374 (7 figs.) W. Deonna discusses (1) an "island" idol at Karlsruhe (Gerhard, Abhandlungen, pl. XLIV, 3; Perrot and Chipiez, VI, p. 740, fig. 332); (2) a solar deity at Geneva; and (3) a ring at Bern. The first represents a female figure from the head of which a smaller figure emerges. Primitive beliefs about birth from the head, etc., are discussed. An image from Indo-China and the representations of the birth of Athena are compared. The solar deity is a gold statuette, with rays about the head, six ovals in a

row from breast to feet, a row of circles across the breast, and a serpent coiled about the person. Other similar figures are cited. The figure is probably prophylactic and is full of mystic religious meaning. The ring is bronze and is classed as Roman. On the bezel is the figure of a man in the attitude of the "Borghese gladiator" by Agasias, in this case a boxer. The inscription $\Pi PACI$ may give the owner's name or may refer to Praxiteles.

Mensae Ponderariae. — In R. Ét. Anc. XV, 1913, pp. 167–180 (4 figs.), W. Deonna discusses the mensae ponderariae, or tables with measures of capacity among the Greeks and Romans, and gives a list of thirty-two. The separate hollows originally held vessels of metal. These tables are of two types. In one each cup-shaped cavity had a hole in the bottom running through the stone. In such cases the slabs rested on supports at the ends or sides. In the second type the block is thicker and rests directly on the ground or on some solid support, and the escape for the liquid is on the side. Sometimes these mensae were attached to walls. Some of them were also used for dry measure, and in that case no metal vessel was necessary.

Thracian Helmets. — Several types of a cap-shaped helmet, which first appeared in Greek art in vase paintings copied from the works of Micon, and the extant examples of which, chiefly of bronze, were found in many cases in the Balkan region, are discussed and fully illustrated by B. Schroeder, in Jb. Arch. I. XXVII, 1912, pp. 317–344 (8 pls.; 18 figs.). He finds it to be of Thracian origin, a metal substitute for the soft cap of skin, and, although it has some resemblance to the Asiatic felt tiara or Phrygian cap, is not derived from that. The subject has a bearing on the nationality of the painter Micon, who was called an Athenian.

Athenian Political Clubs. — A study of the political clubs of ancient Athens, their origin, social features, names, pledges, initiations, etc., has been published by Dr. G. M. Calhoun. He discusses especially their part in litigation and politics. [Athenian Clubs in Politics and Litigation. By George Miller Calhoun. Austin, 1913, University of Texas. 172 pp. 8 vo.]

Hephaestus. -- New evidence, largely numismatic, which is now available on the nature and history of Hephaestus, has led L. Malten (Jb. Arch. I. XXVII, 1912, pp. 232-264; 12 figs.) to reverse the review formerly held by Wilamowitz, that he was of Greek origin. He seems to have been first conceived of among the Solymes of eastern Lycia, as the spirit of a perpetual fire which burned for many centuries, from an issue of natural gas, on the top of a mountain there. The cult spread thence eastward and inland, but more especially west and north, along the coasts and islands of Asia Minor, wherever similar natural fires existed, and reached Lemnos, where Homer places it, in pre-Hellenic times. It was carried to the Lipari Islands by a colony of emigrants from Cnidus and to Athens through some unknown channel, but never appeared in Crete, and was very little known elsewhere on the mainland of Greece. The lameness and the skill in smithery are connected, hand crafts being the usual work of strong men who were disabled for warfare; but whether they both come from a dwarf or cobald origin of the conception, or are only a development from the association with fire, is not clear at present. The association with volcanic phenomena, where it occurs, is a secondary character. The Lycian origin

of Leto and possibly of some of the greater Hellenic divinities is a related question.

Elysium and Rhadamanthus. — The Cretan, Carian, pre-Hellenic character of the god Rhadamanthus and of the goddess Eleutho (later Eileithyia), the goddess of life and death, from whom Eleusis took its name, and the kindred origin of the Homeric Elysion (Od. IV, 561 ff.), with the later developments of the idea of the μακάρων νῆσος in Pindar, Plato, Virgil, etc., are discussed by L. Malten, Jb. Arch. I. XXVIII, 1913, pp. 35–51.

Halon and Halirrothius. — In Ath. Mitt. XXXVIII, 1913, pp. 73-77, E. Schmidt argues that the god of healing, of whom Sophocles was priest, was Halon, who is to be identified with Halirrothius. He was originally worshipped at the spring in the Asclepieum, but was forgotten after the

introduction of the worship of Asclepius.

Hero Propylaeus and Apollo Propylaeus. — In Ath. Mitt. XXXVIII, 1913, pp. 62-72 (2 figs.), O. Weinreich points out that the Thracian Hero Propylaeus resembles, but is not identical with, Apollo Propylaeus. The

latter is a divinity who protects men from the pestilence.

Ancient Alchemy. — The publication by O. Lagercrantz of a chemical papyrus at Stockholm (Papyrus Graecus Holmiensis, Upsala, 1913), was presented by Diels at the March (1913) meeting of the Berlin Archaeological Society. This manuscript is a companion to P. Leydensis X, and together they give a fair idea of the treatise of Pseudo-Democritus, in four books, Φυσικὰ καὶ χειρόκμητα, from which they are evidently derived, and which was the foundation of most of the alchemic literature of the Middle Ages. The papyrus at Stockholm gives the recipes for making gold; the one at Leyden, for precious stones. The compiler of the former says he got his material from Anaxilaus of Larissa, a Pythagorean, banished from Rome in 28 B.c. for practising magic, who was used as a source also by Pliny. (Arch. Anz. 1913, col. 36.)

Three Greek Numerical Systems.—Notes on three provincial Greek numerical systems, with suggested improvements in the interpretation of certain inscriptions in which they occur, from Chalcedon, Nesus (near Lesbos), and Thespiae, are given by M. N. Top in J.H.S. XXXIII, 1913, pp. 27-34. A complete tabulation of the evidence on such systems is to appear in

B.S.A.

Greek Music.—In J.H.S. XXXIII, 1913, pp. 35-47, J. Curtis gives the history of the technical advance of Greek music, with a detailed explanation of the intervals and notation of the various scales for vocal and instrumental use. To the earliest sacred enharmonic scale, of two tetrachords on seven notes, the diatonic genus was added, probably from an Asiatic or Egyptian source, and in the half-century, 650-600, which saw the fall of the Phrygian kingdom, flute playing was officially recognized in Greece, and the Phrygian octave system was introduced and adapted by Terpander to the seven-stringed lyre. This lyre was either the chelys, a light instrument made of tortoise-shell and used for domestic and private art, or the professional cithara, with a heavy sounding box and stops. Pythagoras introduced a new epoch by adding an eighth string, and doing away with the re-tuning of the instrument for each change of scale. Hence the division between the advocates of the old harmoniae and those of the

new theatrical tonoi. Through the successive innovations of Phrynnis, Melanippides, and Timotheus, between 450 and 350, and of later artists, the full double-octave, fifteen-stringed instrument known to Euclid was evolved. The writer denies any general use of the quarter-tone interval, and points out that a Greek thought of an interval or a pitch as a certain length cut off on an actual string, the canon or monochord; also that "mode" is not a suitable word to describe the Greek tonos.

ITALY

ARCHITECTURE

Late Changes in the Basilica Aemilia. — In Rend. Acc. Lincei, XXI, 1913, pp. 758-766, A. Bartoli writes of the last vicissitudes and Christian changes in the Basilica Aemilia. At the beginning of the fifth century a fire destroyed the ceiling and roof, and the aula became a quarry for columns and other architectural members. The Doric façade on the Forum Romanum was later dismantled, and in the seventh or eighth century an oratorium was built in the part toward Argileto and a church (San Giovanni in Campo) in the part toward Antoninus and Faustina.

SCULPTURE

A Portrait of Virgil. — In Mél. Arch. Hist. XXXII, 1912, pp. 385-395, J. Martin identifies a bust in the museum at Naples (No. 6025) as one of Virgil, basing his argument upon a mosaic found at Sousse (Mon. Piot, IV, p. 236) and three miniatures in the middle of the text of the Bucolics in the Codex Romanus. The bust in the Capitoline Museum (Stanza del Gladiatore 16) and the Baracco medallion represent the poet when older. Martin also maintains, on the evidence of the inscription of this Sousse mosaic, which begins with line 8, Musa mihi causas, that the first seven lines in the Aeneid are not Virgilian, but were interpolated by a rhetorician of the first century.

Portraits of Agrippa. — In Jh. Oest. Arch. I. XIV, 1911, pp. 257–266 (14 figs.), J. Bankó attempts to identify certain Roman busts, especially one at Naples and another at Speyer, as portraits of M. Vipsanius Agrippa.

A Roman Portrait Head from Durazzo. — In Jh. Oest. Arch. I. XV, 1912, pp. 68-75 (2 pls.; 8 figs.), A. Hekler publishes a marble portrait head of a woman found at Durazzo in Albania. The hair is arranged in such a way as to conceal the ears. It is a Roman work dating from the first half of the first century A.D.

The Barbarian from Pola.—In Wiener Studien, XXXIV, 1912, pp. 272–281, P. v. Bienkowski has discussed a fragment of sculpture found at Pola, a cast of which was exhibited at Rome in the thermae of Diocletian in 1911. A small, trowsered figure, wearing a torques, kneels beside a much larger figure, of which only the right leg (nearly to the knee) and the left foot remain. The style and other indications lead to the belief that the large figure was Hadrian, the smaller one a Celt or Scordian. (S. R., R. Arch. XXI, 1913, pp. 107 f.; fig.)

Virgil's Aeneid, Book VI, and Works of Sculpture. — In R. Arch. XXI, 1913, pp. 153-170 (6 figs.), L. Delaruelle finds recollections of

works of sculpture in the catalogue of heroes in the sixth book of the Azneid, lines 752–892. The figures of Silvius (line 760), Romulus (line 779), Numa (lines 808–812), Camillus (lines 824–825), and Marcellus (lines 855–859) in particular appear to be described by Virgil as they were actually represented in sculpture.

A Terra-cotta Head. — In Mon. Piot, XIX, 1911, pp. 43-47 (pl.), P. Jamor publishes a terra-cotta head from Sicily, acquired by the Louvre in

1909. It is 15 cm. high and is clearly an architectural fragment.

Terra-cotta Reliefs in the Museo delle Terme. — In Boll. Arte, VII, 1913, pp. 125-142 (2 pls.; 8 figs.), G. Moretti publishes ten terra-cotta reliefs in the Museo delle Terme. In the opinion of the author, they are to be identified as follows: Apollo and Daphne, Omphale, a tensa with figures of the gods, a panther, a piece of cornice with a female head and flowers, a contest between a lion and a griffin, a contest between a lioness and a boar, an antefix with a winged female figure, a bearded mask of the Achelous, and an antefix of a Maenad and a panther.

Pentheus pursued by the Furies.—A relief presented to the Museo delle Terme by the English ambassador, Sir Savile Lumley, is interpreted as a Pentheus pursued by the Erinyes by F. Fornari, B. Com. Rom. XL,

1912, pp. 223-227 (2 figs.).

A Sarcophagus Relief in Palermo. — In connection with the reliefs on the triumphal arches at Carpentras, Orange, and Saint-Rémy, in which trophies and chained captives appear, J. Formigé (B. Soc. Ant. Fr. 1912, pp. 377-378; fig.) calls attention to a sarcophagus relief in Palermo. It represents a battle between Romans and Gauls, some mounted and some on foot. At each end are trophies with a captive man and woman.

The Colossal Statue at Barletta.—At a meeting of the German Archaeological Institute at Athens, February 12, 1913, Dr. Koch showed that the colossal bronze statue which has stood since 1491 outside the church of San Sepolero is a late Roman work, carried off from Constantinople and left on the shore at Barletta after a shipwreck. It is about 5.5 m. high. The legs and left hand were removed by monks and afterwards wrongly restored. The statue is probably a portrait of Valens or Valentinian.

An Illustration of the Sale of a Slave. — In Klio, XII, 1912, pp. 500–503 (2 figs.), H. Gummerus discusses a gravestone found at Capua in 1880 upon which are two reliefs. Above are two freedmen dressed in togas; and below, a slave standing on the *lapis* in the act of being sold. The writer suggests that the M. Publilius Satur, who had the stone erected, was a slave dealer. The stone is mentioned in C.I.L. X, Add. No. 8222.

VASES AND PAINTING

A New Representation of Phlyakes. — In R. Arch. XX, 1912, pp. 321–329 (fig.), Vincenzo Festa publishes a fragment of a red-figured vase found at Altomonte, in the province of Cosenza, and now in the possession of Mr. G. B. Salerno. On the fragment three old men are represented. Two are dancing about the third, who has singular, beast-like feet. Heraclides Ponticus $(\pi. \pi ολιτειῶν s.v. Λευκάνων)$ tells of Lamiscus, king of the Lucanians, who had a wolf's toe on each foot. This Lamiscus is doubtless a survival of an old wolf-god, and the dance represented on the vase is a parody of a ritual dance. The centre of manufacture of phlyacic vases was

probably Lucania, not Campania. A list of fourteen such vases certainly Lucanian is given.

The Potters of Armento in Lucania. — That a distinct school of vase painters existed at Armento (Roman Grumentum) and that their work has been too much ignored by modern archaeologists and confounded with the Apulian work of Ruvo, is maintained by V. Macchioro in Jb. Arch. I. XXVII, 1912, pp. 265–316 (38 figs.). The vases are in the museums of London, Paris, St. Petersburg, Munich, and especially Naples. Four periods can be distinguished, covering roughly the four half-centuries from 400 to 200 B.C., and are characterized by imitation of Athenian, imitation of Apulian, synthesis of previous periods with strengthening of local elements, and decadence. The prevailing taste was for large vessels, craters, amphoras, etc., and for elaborate mythological subjects. In the third period a real seicento barocco style was developed, with winged and floating beings, and violently agitated draperies on motionless figures. The anthemion ornaments are also characteristic.

A Lucanian Vase.—A note from O. WALDHAUER (Jb. Arch I. XXVIII, 1913, pp. 61-62) states emphatically that one of the vases in the Hermitage Museum which L. Macchioro used in his discussion of the vases of Armento is almost entirely modern painting on a restored plaster surface, and we have no means of knowing how closely it follows the ancient design that the restorer may have found when he began his work. The value of these restored surfaces varies greatly; in some cases they reproduce an original drawing accurately, in others they are pure fabrications.

The Paintings on Sepulchral Vases.—In Neapolis, I, 1913, pp. 30-47, (8 figs.), V. Macchioro argues against the view of G. Patroni that the South Italian vase paintings found in graves are to be interpreted as referring symbolically to the life beyond the grave, and maintains that such vases were placed in graves merely as furniture to accompany the deceased, but without any necessary relation, in their decorations, to this purpose.

Contributions to the Study of Southern Italian Vases.—În Rend. Acc. Lincei, XXI, 1913, pp. 549-606 (2 figs.), G. Patroni argues that V. Macchioro's work on southern Italian vases is in agreement with his own, with corrections made necessary by recent discoveries. The latter's chief contribution has been the discovery of documents which trace the provenance of many vases in the Naples museum. He has also shown that Heydemann's catalogue is very poor.

Penelope on a Southern Italian Hydria.—In Rend. Acc. Lincei, XXI, 1913, pp. 383–394 (pl.), V. Festa explains the scene at the left on a hydria from Paestum in the Naples museum (Heydemann, Vasen, No. 2099) as Penelope seated on the cenotaph of Odysseus with Eutychia holding a mirror to indicate that Odysseus would soon return. At the right Odysseus is receiving gifts from Eurycleia. Ibid. pp. 836–841, B. Bassi rejects this explanation, insisting that such scenes in Italian vase-painting are always symbolical. The central figure, seated on the tomb, represents the defunct in the guise of Penelope, so that the mirror and the hydria have their proper signification as attributes of the dead woman. The word $\kappa a \lambda \dot{\eta}$, unusual on Italian vases, indicates that not Penelope, but the dead woman, is here represented, while the names Telemachus and Odysseus show that it is as a Penelope that she enters the lower world.

A Painted Tomb at Canosa. — In Neapolis, I, 1913, pp. 1–5 (pl.; 4 figs.), M. Rostowzew discusses the tomb at Canosa published by Macchioro and compares it with those at Petra, and with tombs at Anapa (the ancient Gorgippa) in Russia which have been destroyed. The fillets and crowns of the painted interior decoration are found in tombs in southern Russia and elsewhere. They are Hellenistic. The tomb should be dated in the third century B.C.

INSCRIPTIONS

Piranesi's Etruscan Inscriptions. — In the Minnesskrift till Professor Axel Erdmann, pp. 313-337 (6 figs.), O. A. Danielsson shows that little or no reliance can be placed upon the Etruscan inscriptions appearing upon architectural fragments in the Osservazioni di Gio. Battista Piranesi sopra la Lettre di M. Mariette, etc. Some of them are taken from Gori's Museum Etruscum in whole or in part. One is made up of inscriptions on two different monuments in Gori's book; and another has the inscriptions on an Etruscan mirror as its principal source.

Oscan Inscriptions and the Samnites. — In Rend. Acc. Lincei, XXI, 1912, pp. 206-216, A. Sogliano finds that the fact that the so-called Oscan language is coterminous with the Samnite territories is best explained by the theory that the uncultured Samnites on conquering Campania, in the last part of the fifth century B.C., borrowed the alphabet of the Osci, with which to write their own language, and with this the name "Oscan." The Osci were not of Samnite blood, as has been believed, for archaeològical considerations show that they were descendants of a neolithic Mediterranean stock, cave-dwellers, who buried their dead in a squatting posture as in the cemeteries of Cumae, the valley of the Sarno, Capua, Nola, and Suessula, their name Opsci being cognate with the Latin word opus. Their epichoric name was Ausoni. Scylax and Virgil are too late to have their testimonies count against this archaeological evidence. The Samnite alphabet was derived from the Etruscan, not via the Umbrian, as Mommsen, misled by Niebuhr, thought, but rather via the Oscan. The extant Oscan inscriptions date from times later than the entrance of the Samnites into Campania, where three-fourths of them have been found.

The Letters T. D. V. S. on an Ex-Voto from Pompeii. — In Rend. Acc. Lincei, XXI, 1912, pp. 69-78 (fig.), E. TARALLO interprets the letters T.D.V.S on an ex-voto of M. Fabius Secundus found in the temple of Apollo at Pompeii and now in the National Museum of Naples as meaning Triviae Dianae Votum Solvit or Triviae Deae Votum Solvit, comparing C.I.L. X, 3795 Dianae Tifatinae Triviae Sacrum. Marcus Fabius Secundus lived about the middle of the first century A.D., and this ex-voto was probably set up shortly before the earthquake of 63.

Utricularii. — The vexed question as to the Roman guild of the utricularii receives some further light from a contribution by L. Cantarelli in B. Com. Rom. XL, 1912, pp. 237-242 (pl.). He accepts the interpretation "bagpipers" for Rome itself, but thinks that on the inscriptions of Gaul and Dacia the reference is to boatmen employing rafts supported by inflated skins.

A Dedication to Isis. — In Revue de Philologie, XXXVI, 1912, pp. 284–296, M. Brillant discusses the dedication to Sarapis from Tomi published

by Mommsen (Röm. Ges. V, p. 284; Cagnat, Insc. Graec. ad res Rom. pertinentes, No. 604). The stone is now in the court of a hotel in Paris.

An Inscription from the Catacombs. — An inscription from the catacombs between the Appia and the Via Ardeatina, now in the museum at Velletri, is the subject of a monograph by G. S. Graziosi in B. Com. Rom. XL, 1912, pp. 204–222. He tries to establish the existence of a previously unknown hall, or gathering-place of the coachmen (carrucarii), in the First Region, Porta Capena.

Notes on Latin Inscriptions.—In Eranos, XIII, 1913, pp. 72–82, E. LÖFSTEDT discusses the form descidise in C.I.L. III, 7756; the word iniquum in C.I.L. X, 2598; and points out the influence of Virgil on C.I.L. VI S. 389.

Epigraphic Bulletin. — In their 'Revue des Publications relatives à l'Antiquité romaine' for July-December, 1912 (R. Arch. XX, 1912, pp. 447–494, with index, pp. 495–511), R. CAGNAT and M. BESNIER give the text of 175 inscriptions (33 in Greek and the rest in Latin) and notes on epigraphic publications.

COINS

Unpublished Coins of Tarentum.—In Neapolis, I, 1913, pp. 80-86 (27 figs.) L. Correra gives reproductions and a description of 28 unpublished or little known Tarentine coins in the collection of M. P. Vlasto.

Hoard of Republican Coins from Alba di Massa.—The minute description of a hoard of 83 denarii, 15 quinarii, and one victoriate, found at Alba di Massa gives Lorenzina Cesano (R. Ital. Num. XXVI, 1913, pp. 23-47; fig.) occasion to discuss, on a basis of comparison of contents and condition with those of other hoards, the accuracy of dates assigned to certain republican coins by Babelon and Grueber.

Mint of Sextus Pompey in Spain.—L. LAFFRANCHI interprets the abbreviation SAL on the obverse of coins of Sex. Pompey with the PIETAS reverse as a mintmark standing for Salduba (now Saragozza), the place of coinage. (R. Ital. Num. XXV, 1912, pp. 511-516; 4 cuts.)

Hoard of Denarii at Stellata.—An account is now first published by L. RIZZOLI, Jr., of the discovery of a collection of denarii and antoniniani made as far back as 1904 at Stellata in the commune of Bondeno, province of Ferrara, Italy. The hoard numbered probably about 2500 coins, but many were dispersed at the time of the discovery. Sig. Rizzoli gives a list of 622 pieces, ranging in date from the time of Vespasian to that of Gordian III. Of these pieces 576 were denarii, 45 antoniniani, and one was doubtful. Types represented were 333, but no new type was included. (R. Ital. Num. XXV, 1912, pp. 517–544; 2 cuts.)

Additions to the Corpus of Medallions.— In R. Ital. Num. XXVI, 1913, pp. 17-22 (pl.), Fr. Gnecchi publishes nine medallions (of Nero, M. Aurelius, Commodus, and Gordianus Pius) as a supplement to his great corpus.

Medallion of Mariniana. — In R. Ital. Num. XXVI, 1913, pp. 13-16 (fig.), Fr. Gnecchi describes from his collection a unique medallion of Mariniana, that princess or empress of the middle of the third century A.D. known only through her coins. The medallion bears on the obverse the veiled bust of Mariniana, with the inscription DIVAE MARINIANAE;

on the reverse a peacock bearing Mariniana skyward, and the inscription CONSECRATIO. The material is bronze, bordered. Medallions of the consecration type are rare, embracing only seven names eight types, and ten examples. The personages thus commemorated are Antoninus Pius, Faustina Senior, Pertinax, Julia Domna, Mariniana, Saloninus, and (possibly not authentic medallion) Constantius Chlorus.

Coins of Helena.—Jules Maurice, in his Numismatique Constantinienne, assigned certain coins of Helena N. F. to the younger Helena, wife of Crispus Caesar. Percy H. Webb (Num. Chron. 1912, pp. 352-360; pl.) disagrees, arguing that these coins are all of the older Helena, mother of Constantine.

Constantiniana Dafne. — In B. Soc. Ant. Fr. 1912, pp. 310-315, R. Mowat argues that the legend Constantiniana Dafne on certain coins of Constantine I refers, as Gretzer and others believed, to the castle of Daphne built by Constantine on the Danube; but that there is also allusion to the Daphne of Antioch. Constantine honored Apollo and wished to consecrate to him, on the banks of the Danube, a sanctuary which should rival that of Antioch.

The First Corbridge Find. — The find of forty-eight solidi, ranging in date from Valentinian I to Magnus Maximus (ca. 364–385 A.D.), made at Corbridge, in Northumberland, in 1908, was summarily described by H. H. E. Craster in an article on the second Corbridge find, of 1911, in Num. Chron. 1912, pp. 265 ff. (cf. A.J.A. XVII, pp. 129; 304). A more minute and accurate description of the coins of the earlier find is now given by H. A. Grueber, with some historical discussion of points suggested by them, especially on the reigns of Valentinian and Gratian (Num. Chron. 1913, pp. 31–56; 2 pls.).

Unique Portrait of Theoderic.—It is worthy of general knowledge that in the collection of Fr. Gnecchi (R. Ital. Num. XXVI, 1913, p. 16) there is a medallion of Theoderic, unique, as being the only known coin or medallion of that monarch, and as presenting his only known portrait.

GENERAL AND MISCELLANEOUS

Phoenician Importations in Western Italy. — In Klio, XII, 1912, pp. 461–471, U. Kahrstedt discusses the importation into Etruria, and likewise into Campania, Latium, and north of the Apennines, of scarabs, beads, figures of Bes, etc., of Egyptian or Phoenician manufacture. They probably came from Sardinia, Cyprus, or the Asiatic mainland, not from Carthage, and date from two periods, the first lasting from the ninth to the second half of the seventh century, and the second during the sixth and part of the fifth century. The importation of these wares in the second period is to be explained by the alliance of the Etruscans and Carthaginians, but the commerce was carried on in Etruscan ships.

Mirrors from Praeneste. — Under the title Die Praenestinischen Spiegel, ein Beitrag zur Italischen Kunst- und Kulturgeschichte (Zur Kunstgeschichte des Auslandes, Heft 95. Strassburg, 1912, Heitz. 150 pp.; 3 pls.; 33 figs.) Georg Matthies publishes a study of the engraved mirrors and cistae of Praeneste. He discusses the shape and technique of these mirrors; the connection between Egyptian, Mycenaean, and Greek mirrors with the Etruscan;

the engraving; and the inscriptions. Furthermore, he arranges the Praenestan mirrors in six periods or groups; the first, second, fourth, and fifth of which he subdivides into three sections each. The models used, industrial art at Praeneste, and the drawing on the cistae are also considered.

The Fibula Corsini and the "Templum Coeleste" of the Etrurians.— In Rend. Acc. Lincei, XXI, 1912, pp. 315–330 (pl.; 17 figs.), A. MILANI describes the "fibula Corsini" found near Albegna in Etruria, and now in the Central Etruscan Museum of Florence. Ten doves or ducks in single file, representing, he thinks, the Pleiades, decorate the straight staff, while the curved part has fourteen others arranged first in pairs and then in threes. Two bears or lions form part of the decoration, the Gemini are represented by double globes, and the star of Venus by a flattened sphere from which the pin proper extends. The material is of silver covered with plates of gold with granular gold decoration; the length is 16 cm. In proving its connection with the "templum coeleste" of the Etrurians, Milani compares other fibulae, pendants, coins (e.g. of Mallus in Cilicia), Cretan gems, etc. in which the Pleiades and other heavenly bodies are represented.

Etruscan Elements in Place Names.—In Rend. Acc. Lincei, XXI, 1912, pp. 145–190, S. Pieri writes of some Etruscan elements in the names of places in Etruria, using as a basis the 'Toponomastica della Valle dell' Arno' (Rend. Acc. Lincei, XX, 1911, pp. 503–562). Endings in na (ena, enna, ina) form one list; those in ano (usually nano) another, both derived from Etruscan names of persons.

The Name Apulia. — In Neapolis, I, 1913, pp. 68-79, F. RIBEZZO derives the name Apulia through Greek and Oscan-Sabellian channels, from Iapudia, the land of the Iapudes or Iapygians.

Prehistoric Bronze Objects.—Prehistoric bronze objects from the Lomellina are discussed by G. Patroni in B. Pal. It. XXXVIII, 1913, pp. 84-91 (3 figs.). They consist of torques, an armband, and an axe.

Notes on Prehistoric Sardinia. — Notes on prehistoric Sardinia, with special reference to metals and mines, are published by A. TARAMELLI, B. Pal. It. XXXVIII, 1913, pp. 67-83.

Horse Bits of the Early Iron Age. — Horse bits of the early Iron Age are studied by G. Bellucci in B. Pal. It. XXXVIII, 1913, pp. 135-146 (5 figs.). Bronze was often used for the other parts; iron for the actual bit.

A Four-wheeled Wagon and a Thronos in the Vatican Museum. — In Rend. Acc. Lincei, XXI, 1912, pp. 79-83, G. Pinza describes a four-wheeled wagon, and also a thronos with the front legs decorated with the fore-part of horses, buried in the tomb of the Regolini and now in the Vatican museum. The remains of the latter, mingled with those of the cart, though entirely independent of it, had almost escaped notice. The axles of the wagon revolved with the wheels. Both iron and bronze were used in its structure.

A Bronze Situla in Syracuse.—The bronze situla from Leontini discussed by P. Orsi in B. Pal. It. XXXVIII, 1913, pp. 30–38 (fig.), is further considered by the same writer, ibid. pp. 168–175.

A Marble Bowl with Reliefs.—In B. Soc. Ant. Fr. 1912, pp. 335-340 (2 figs.), A. HÉRON DE VILLEFOSSE publishes the fragmentary marble bowl in the National Museum in Rome described in A.J.A. XVII, p. 445, and records four other marble vases of the same shape.

The Victory of Tarentum. — In Neapolis, I, 1913, pp. 19–29 (6 figs.), A. Reinach argues that the statuette in the Naples museum representing Victory standing on a globe is a copy of the famous Victory of Tarentum carried off by Augustus to adorn the Curia Julia. He thinks that the statue was originally set up by Pyrrhus to commemorate his victory at Heraclea, and that it may have been made by Eutychides of Sicyon, a pupil of Lysippus.

A Glass Mosaic from Naples.—In Archaeologia, LXIII, 1912, pp. 99–104 (pl.; 4 figs.), R. T. Günther publishes a small glass mosaic from the imperial Roman villa at Posilipo near Naples. It represents a white dove flying down towards three plants. Ibid. pp. 106–108, J. J. Manley describes a chemical analysis of the glass, which was found to contain a small percentage of uranium oxide. A synthesis of the glass was attempted, which gave a transparent instead of an opaque green glass. By reheating, however, the opaque effect was produced; and it was found that the opaque glass could be made transparent or the transparent opaque as often as desired.

A Portrait of Julius Caesar as Zeus Nikephoros.—In ' $A\rho\chi$. 'E ϕ . 1912, pp. 263 f. (2 figs.), K. Phylaktou publishes a gem from Cyprus engraved with a scene which he interprets as the defined Julius Caesar sitting upon a throne in the guise of Zeus Nikephoros, with a sceptre in one hand and a ball representing the orbis terrarum in the other, an eagle at his feet, Nike or Venus approaching from above, and the Iulium Sidus gleaming behind him.

Representations of Hand Crafts on Roman Grave and Votive Reliefs. — The Roman reliefs and graffiti which bear on the mechanical trades in the Roman period are discussed, from the personal and economic, rather than the technical, point of view, by H. Gummerus in Jb. Arch. I. XXVIII, 1913, pp. 63-126 (33 figs.). A classified list of 115 such monuments from Italy and the provinces is given, and most of them are described in detail. They concern metal working (gold, copper, and iron); wood and stone working (joiners, wagoners, shipbuilders, statuaries, etc.); and building trades (carpenters, stonecutters, masons, bricklayers, etc.). More than half show only the tools, in different combinations; others are pictures of the men at work, or their products. In some instances a mythological scene represents the trade of which the hero shown was patron, as Daedalus making the wooden cow for Pasiphaë, for the joiners. The inscriptions which accompany many of the reliefs show the status of the persons commemorated, whether liberti, free-born, or slaves. All these classes could belong to the guilds, collegia. The liberti, the largest class, are often of Greek origin, sometimes from more distant provinces, but Greek is rarely found on the monuments. The reliefs and inscriptions often interpret each other and help to explain some Latin technical terms. The writer is able also, by comparisons, to correct some deductions made in earlier publications. On some reliefs from southern Gaul and northern Italy, an adze, or an adze and a level with or without the words sub ascia dedicavit, seem to have a symbolic and religious, possibly an apotropaic, meaning, and do not indicate the occupation of the deceased. The graffiti are chiefly from the Christian catacombs and columbaria.

Roman Lamps in Verona. — In Madonna Verona, VI, 1912, pp. 181-

194, C. Anti discusses the Roman lamps of terra-cotta preserved in the Museo Civico of Verona. They are about six hundred in number, and exhibit all the forms recorded by Dressel except Nos. 8, 17, 19, and 24. There are some new forms and several variants of familiar types. *Ibid.* VII, 1913, pp. 6–24 (pl.), he discusses the inscriptions.

Ancient Appliances for Extracting Teeth. — In Jh. Oest. Arch. I. XV, 1912, Beiblatt, cols. 135–156, R. R. v. Töply discusses some ancient dental forceps of Roman date, and publishes a dedicatory bronze tooth from Car-

nuntum.

The Cults of Ostia.—In her dissertation The Cults of Ostia (Bryn Mawr, 1912, 98 pp.), Lily Ross Taylor, after a sketch of the history of Ostia, gives the evidence for the worship of various gods there. She classes them under three headings, the Greek and Roman gods, the cult of the emperors, and the Oriental gods, and notes the temples for which there is evidence.

The Terminus Cult. — In Arch. Rel. XVI, 1913, pp. 137–144, E. Samter discusses the Terminus cult and shows that originally it had nothing to do with Jupiter.

The Cult of Mithra in the Praetorian Camp. — The existence of a special military cult of Mithra by the praetorians in the time of Septimius Severus can be established, according to U. Antonielli in B. Com. Rom. XL, 1912, pp. 243–252, by comparing a newly found inscription from the island of Andros with a dedication at Rome.

The Discovery and Preservation of Archaeological Remains. — In Boll. Arte, VI, 1912, is published a series of addresses by the honorary inspectors of monuments at Rome. Among them are the following: pp. 431-449 (5 figs.), L. Parpagliolo, on the preservation of monuments; pp. 450-474 (7 figs.), R. Artom, on the preservation of objects of art; pp. 475-487 (6 figs.), F. Pellati on excavations and chance discoveries; ibid. VII, 1913, pp. 1-42 (33 figs., including one showing the recently discovered thermopolium at Pompeii), G. Giovannoni, on the restoration of ancient monuments; pp. 43-67 (24 figs.), G. Boni, on the methods followed in archaeological explorations and the preservation of objects found.

Ancient Monuments in Rome from the Fifteenth to the Eighteenth Century. — In R. Arch. XXI, 1913, pp. 171–183, E. Rodocanachi gives an account of the attitude of the Popes and the Communal Council in regard to the ancient monuments in Rome, citing the numerous ordinances passed for their preservation and the still more numerous exceptions made for particular persons or occasions from the fifteenth to the eighteenth century.

The Growth of the Roman Museums.—In Museumskunde, IX, 1913, pp. 1–26 (12 figs.); 85–105 (8 figs.); and 162–181 (8 figs.), F. Schottmuller discusses the growth and development of the museums and picture-galleries

at Rome, both private and public.

Aefula. — In Rend. Acc. Lincei, XXI, 1912, pp. 125-144 (2 maps), L. Bacciarelli discusses the supposed site of Aefula, and the roads leading to it, connecting with the Via Tiburtina and the Via Praenestina. He describes the fortifications on the height near the temple of Bona Dea (the Arx Aefulana of Livy, XXVI, 9, 9, and the Aefulae declive . . . arvum of Horace, Odes III, 29), and accounts for the few references to it in Latin literature by the fact mentioned in Livy (VIII, 14, 9) that the people of

Tibur and Praeneste were deprived of part of their territory (agro multati) in 337 B.C., and had no desire from then on to contend with Rome, so that the fort built against them at that time soon became unnecessary. The passage about Hannibal's movements in this connection is fully discussed. In 88 A.D., L. Paquedius Festus restored the temple of Bona Dea (C.I.L. XIV, 3530).

Pomerium and Pelargikon. — Under the title Pomerium och Pelargikon. En religionshistorisk-Topografisk Undersökning (Upsala, 1911, Akad. Boktr. 28 pp.; fig.), S. Wide discusses the Roman pomerium in connection with

the Pelargikon of Athens.

Roman Camps in the East under the Emperor Marcus. — In Klio, XIII, 1913, pp. 70-104, A. v. Premerstein discusses the evidence for the Roman camps in the east at the time of the German and Sarmatian wars of Marcus, with an appendix on C. Pescennius Niger.

SPAIN

A Spanish Bracelet of Gold.—In R. Arch. XX, 1912, pp. 375-380 (2 pls.; 3 figs.), Salomon Reinach publishes a gold bracelet from Spain, now belonging to Mr. Ignace Bauer. It is of the same period as the fine head from Elche, and exhibits remarkable technical skill. The process by which a copper reproduction was made at Saint Germain is described. The date of the bracelet is probably not far from 450 B.C., perhaps a little later.

FRANCE

Gold Vases of the Late Bronze Age. — In Mon. Piot, XIX, 1911, pp. 181–183 (pl.; 3 figs.), J. Chappée describes the two gold vases (one 12 cm. and the other 11.8 cm. high) found in 1910 under a hollow rock at Villeneuve-Saint-Vistre (A.J.A. XVI, p. 448). They contained two bracelets, three rings, and a roll of wire, all of gold. Ibid. pp. 185–199 (7 figs.), J. Déchelette discusses another vase of the same date and decoration found by a peasant at Rongères in 1911. It contained a bracelet, a ring, and two spirals. It is circular in shape, 5.2 cm. high, and 9 cm. in diameter, made of a single sheet of gold and decorated with a pattern of concentric circles in repoussé work. The bracelet is a ribbon of gold ending in volutes, a type not previously found in France, and probably Hungarian. All the objects appear to have come from central Europe and date from the latter part of the Bronze Age.

The Semi-circular Building at Arles.—In B. Soc. Ant. Fr. 1912, pp. 419-423 (pl.; plan), J. Formige argues that the semicircular structure with three niches discovered at Arles was not the basilica, but stood at one end of an open court which lay between the short side of the forum and the temple of the Genius of the colony. There was a similar structure at the

other end. The basilica of Arles was located elsewhere.

The Decoration of Gallo-Roman Houses.— The methods employed by the people of Gaul in Roman times to beautify their houses are discussed at length by Adrien Blanchet in his Étude sur la décoration des édifices de la Gaule romaine (Paris, 1913, E. Leroux. 240 pp.; 10 pls.; 18 figs.) He takes up first decorative materials, marble, stucco, decorative brick, glazed

brick, bas-reliefs, gargoyles, antefixes, etc.; then treats of wall-painting of different types, artists' signatures and graffiti, and the combination of painting and mosaics; and then decorative furniture, including bronzes, objects of gold, silver, and ivory, vessels of terra-cotta and of glass, and the like. In the second part of his book (pp. 153–210) he compiles a corpus of the wall paintings found in Gaul, that is, in France, Belgium, the Rhine valley, and Switzerland. A full index is added.

The Roman City of Lillebonne. — In R. Arch. XXI, 1913, pp. 184–208 (9 figs.), RAYMOND LANTIER describes the Roman city of Juliobona (Lillebonne, on the Seine, forty kilometres east of Havre), as made known by chance discoveries and archaeological research in the last three centuries. The place was at the junction of important roads and at the head of navigation of the river. It was never a very large city, but contained all the component parts of a city, forum, theatre, etc. Its ancient plan and the sites of the chief buildings are known, and sufficient details have been preserved to give life to the description of the Gallo-Roman town.

Group of Children. — In R. Arch. XX, pp. 381–384 (3 figs.), Salomon Reinach discusses the group of two children discovered at Vienne in 1798 and destroyed by fire in 1854. One of the children holds the arm of the other to his mouth and has been supposed to be biting it. On a tree trunk close at hand is a serpent. The explanation is offered that one child (who holds a bird in his hand) has been bitten by the snake and the other is sucking the wound. A small marble in the Capitoline Museum represents a girl defending her bird from a snake. Combats between children are represented so that there is no doubt about them.

A Figure of a Gaul.—Lycurgus.—In R. Arch. XXI, 1913, pp. 227–231 (2 figs.), S. Reinach reprints from The Art Union, Monthly Journal of the Fine Arts (1839–1849), volume of 1843, p. 214, a cut of a Gaul seated on the ground with his hands tied behind him and leaning against a column. The legend "Statue found at Athens" may possibly lead to its identification. A cut of a glass vase mounted in silver is also reprinted from The Art Journal, 1866, p. 26. On the front of the vase the maddened Lycurgus is represented among grapevines. The vase was once in the collection of Baron Lionel Rothschild, but has now disappeared (cf. Annali del Instituto, 1872, p. 250; Roscher, Lex. d. Myth. p. 2201, s.v. Lykurgos).

The Torques of the Gauls.—In R. Arch. XXI, 1913, pp. 232–233, Joseph Déchelette briefly summarizes the results of excavations, so far as they affect the use of the torques by the Gauls. In the La Tène I period (fifth and fourth centuries) it was worn by women only. Its use as a distinguishing mark of the warrior is not earlier than the third century B.C. Perhaps this was adopted from the Scythians with whom the Gauls came in contact about that time.

The Lamp from Saint Paul Trois Châteaux. — In R. Arch. XXI, 1913, pp. 77-79 (2 pls.; fig.), Salomon Reinach publishes a fine five-branched bronze Roman lamp found in 1895 in the Roman ruins near Saint Paul Trois Châteaux (Augusta Tricastinorum, ancient Noviomagus) and now in the museum of Saint Germain. It is adorned with a Gorgon mask and five heads of Sileni of excellent workmanship, apparently not later than the first century A.D. Other fine Roman lamps are in Madrid (fig.), London, and some Italian museums.

HOLLAND

Ancient Lamps in Leyden. — The Museum of Antiquities in Leyden possesses a collection of nearly 1200 terra-cotta lamps of thirty-two different types. These have now been catalogued by Johanna Brants. The oldest dates from the seventh or sixth century B.c. and the latest from the fifth or sixth century A.D. The different specimens are described in Dutch; but there is a brief account of the development of the lamp and of the different types in the collection in German. Illustrations of more than 400 lamps are given. [Antieke Terra-cotta Lampen uit het Rijksmuseum van Oudheden te Leiden, beschreven door Johanna Brants. Leyden, 1913. 74 pp.; 9 pls., 4to.]

SWITZERLAND

Prehistoric Gold Objects in Switzerland. — At the prehistoric congress at Nîmes in 1911, Mr. D. Viollier discussed the use of gold in prehistoric times in Switzerland. Gold is unknown in the lacustrian stations of the Stone Age, appears in very small objects or thin leaves at the end of the Bronze Age, and becomes more common in the First Iron Age, to which belongs a large ingot found near Zürich in 1906, adorned with crescents, disks, and animals. In some Hallstattian tumuli circles of gold have been found, the use of which is unknown. In the La Tène period large objects of gold are wanting, but rings are found often, and half of a golden torques was found at La Tène itself. (S. R., R. Arch. XXI, 1913, p. 107.)

GERMANY

Early Remains in Westphalia. — In Z. Ethn. XLIV, 1912, pp. 187-195 (3 figs.), R. BÄRTLING tries to determine the geological age of human remains and implements in Westphalia. 'Ibid. pp. 195-200 (5 figs.), HANS MENZEL discusses the fauna of the time of the quaternary man of the Rhein-Herne-Kanal and the age of objects found there.

Bone Spindles. — The whorls of spindles are very frequently found on ancient sites, but the spindles themselves, as made of materials that were subject to decay, are far rarer. Three bone spindles, ornamented with scratched lines, found in Thüringen are described by H. MÖTEFINDT (Z. Ethn. XLIV, 1912, pp. 94–96; 3 figs.).

The Sculptured Column of Mayence. — In R. Arch. XXI, 1913, pp. 25–30 (4 figs.), Salomon Reinach discusses the figures on the sculptured column at Mayence, especially the explanations offered by Oxé (Mainzer Zeitschrift, VII, 1912, pp. 28 ff., pls. III and IV). The figures called Libera and the Tres Galliae by Oxé are identified as Rosmerta and Ceres, Venus, and Vesta.

AUSTRIA-HUNGARY

The Prehistoric Settlement at Korpád.—In Dolgozatok az Erdélyi Nemzeti Múzeum, IV, 1913, pp. 1-17 (6 figs.), I. Kovács describes the eight prehistoric hut sites discovered at Korpád, Hungary, in 1901. They are elliptical in shape. Several fragments of pottery, one of which was decorated with a complicated geometric pattern, were found, but no traces of metal.

The Roman Barthworks in the Comitat of Bácsbodrog.—In Dolgozatok az Erdélyi Nemzeti Múzeum, IV, 1913, pp. 18-93 (24 figs.), A. Buday discusses the ancient fortifications in the Comitat of Bácsbodrog, Hungary. The small work was part of the Roman limes, erected shortly after 173 a.d.; the large work and the small intrenchments were constructed by the Romans at an unknown date, but did not form part of the limes.

GREAT BRITAIN

The Implement-bearing Gravels of the Test Valley.—In Proc. Soc. Ant. XXIV, 1912, pp. 108-115 (7 figs.), W. Dale discusses the implement-bearing gravel beds of the Test valley, and the source of the patina upon the implements found in them.

The Date of the Flints from Grime's Graves and Cissbury. — In Archaeologia, LXIII, 1912, pp. 108-158 (3 pls.; 40 figs.), R. A. SMITH argues that the flints found at Grime's Graves and Cissbury about forty years ago belong to the late palaeolithic, not to the neolithic, age.

A Gold Torc. — In *Proc. Soc. Ant.* XXIV, 1912, pp. 39–49 (3 figs.), O. G. S. Crawford discusses a gold torc found at Blackwater, Hants, in 1852. It is of a rather rare type and dates from the Middle Bronze Age. A list of the known specimens and a bibliography are added.

An Imported Samian Potsherd.—In Proc. Soc. Ant. XXIV, 1912, pp. 35–37 (fig.), F. Haverfield publishes a fragment of Samian ware from Fenny Stratford, which seems to have come originally from a pottery in eastern Gaul, perhaps from La Madeleine or Lavoye. The place where it was found is probably the site of the Romano-British village of Magiovinium.

The "Saucer-Brooch." — In Archaeologia, LXIII, 1912, pp. 159–202 (4 pls.; 22 figs.), E. T. Leeds shows that the so-called "saucer-brooch" can no longer be regarded as peculiar to the West Saxons, as many specimens have been found outside the West Saxon area. This type of brooch seems to have originated in Germany west of the Elbe and to have come into fashion about the time of the migrations to England.

Notes on Watling Street.—In Proc. Soc. Ant. XXIV, 1912, pp. 137–143 (plan), W. Page describes excavations made near the Marble Arch, London, in an unsuccessful effort to find the course of Watling Street between that point and Shooter's Hill. He argues that there was a British track from the ports in Kent to Verulamium following approximately the line of Watling Street. Towards the latter part of the first century the importance of London was established and the British tracks strengthened. At the beginning of the third century London was the centre of the road system, and traffic by Watling Street must have passed through it. Ibid. pp. 143–146 are notes by J. G. Wood, G. J. Turner, and the author.

The Anglo-Saxon Cemetery at Uncleby. — In Proc. Soc. Ant. XXIV, 1912, pp. 146-158 (plan; 7 figs.), R. Smith describes in detail the excavations conducted in 1868 in the Anglo-Saxon cemetery which lies about a prehistoric barrow at Uncleby in Yorkshire. The contents of sixty-eight graves are reported.

AFRICA

An Iberian Vase from Carthage. — In C. R. Acad. Insc. 1913, pp. 10–15 (fig.), P. Parts argues, against L. Siret, that a large vase from the necropolis of Sainte-Monique, Carthage, and now in the Musée Saint-Louis, is of Iberian workmanship, and was imported from Spain. Its decoration consists of bands of concentric semicircles and quarter circles.

The Carthaginian Deity "Tanit."—In J.A.O.S. XXXII, 1912, pp. 429-433, W. M. MÜLLER maintains that the "local divinity of the Carthaginians," as Polybius calls her, cannot well have had a Semitic name; it is a difficult task to fit her name into Semitic etymologies. Its formation, on the other hand, clearly betrays a Libyan origin. Prefixed t + suffixed t or th are the usual characteristics of Libyan. This formation agrees too closely with the divine name TNT to be accidental. Consequently, we have to consider this name as a feminine formation from a root with n and one or two weak consonants.

EARLY CHRISTIAN, BYZANTINE, AND MEDIAEVAL ART GENERAL AND MISCELLANEOUS

Early Christian Inscriptions in Latin. — Under the title Lateinische Altchristliche Inschriften mit einem Anhang Jüdischer Inschriften (2 Aufl. Bonn, 1913, A. Marcus and E. Weber. 86 pp. M. 2.20). E. DIEHL publishes with brief comment 369 early Christian inscriptions in Latin.

Christian Inscriptions in the Capitoline Museum. — The Christian inscriptions of the Capitoline Museum, as now rearranged, are described, and in large part published, in B. Com. Rom. XL, 1912, pp. 177–203 (2 pls.), by O. Marucchi, who adds brief mention of the Christian sculptures.

A Sassanian Bowl.—In Archaeologia, LXIII, 1912, pp. 251-256 (4 pls.; 2 figs.), Sir C. H. Read publishes a Sassanian bowl of about 400 A.D. uncovered by a flood of the Swat River in India, and now in the British Museum. The main design on the outside is a hunting scene in which a king, perhaps Bahram IV (A.D. 380-404), participates. The bowl is somewhat worn, but an inscription in punched Brahmi letters can be made out. It reads, khantinugaka or khambhīnugaka, which has not yet been interpreted.

Orient or Byzantium? — In Byz. Zeit. XXII, 1913, pp. 127-135, L. Bréhier publishes the data afforded by Byzantine sculpture to the solution of the problem of the source of Byzantine art. He points out that the theory of Strzygowski, that in its development Byzantine art is but a succession of waves of Oriental influence, and that of Diehl, that the art of Constantinople, while largely Oriental in origin, is nevertheless original in its later development, may be reconciled by regarding the evolution as a twofold affair. Thus the technical processes of Byzantine art are clearly and constantly Eastern, but the style shows itself capable of self-renewal, and its phases are independent of the East, being rather revivals of the antique. This is the case in the sculpture, wherein the Hellenistic methods yield in turn to drilled work, undercutting, ajouré work, lace work, and a process imitative of textiles, - stages conditioned by successive importations of Oriental ideas. The style on the other hand, so far as one can judge by the scanty monuments left us, is by no means rigid, but shows the same tendency to refresh itself from Greek sources as does painting.

Mussulman Architecture of the Thirteenth Century in Irak. - In R. Arch. XXI, 1913, pp. 1-18 (15 figs.), H. VIOLLET describes the Madrasa Mustansirîyah at Bagdad and discusses the use of moulded bricks for decorative purposes, which was especially popular and successful in the thirteenth century. The school, or Madrasa, founded by the Abbaside khalif Mustansir about 1232, is now a customs storehouse and is in a ruinous state. Its plan is rectangular, with two ivans facing each other at the ends and three large bays in the middle of each of the long sides. The brick decoration is especially interesting.

The Miniatures of an Eleventh Century Psalter. — In Proc. Soc. Ant. XXIV, 1912, pp. 159-170 (17 figs.), P. M. Johnston describes the sixteen miniatures in a Psalter of St. Jerome, etc., written for Ernulph, Archbishop of Milan, 998 to 1018.

"Peter-scenes" in Early Christian Art. — In a monograph on the "Peter-scenes" in Early Christian art (Röm. Quartalschrift, 1913, pp. 17-74), P. Styger brings forward several new interpretations tending to show that most of the scenes are not symbolical or typological, but actual representations of episodes in the Peter-legend. Thus the "Peter-Moses" striking the water from the Rock is but the miracle of the spring related in the Martyrium S. Petri and the Passio SS. Processi et Martiniani. The round caps worn by the "Jews" in the episode are the customary insignia of Roman apparitores, and in this case indicate the "custodes" of the legend. The Peter type arose by assimilation with the bearded type of Christ, and was further defined by differentiation from the Paul-type.

The Psychostasis in Christian Art. — In Burl. Maq. XXII, 1913, pp. 208-218, MARY P. PERRY continues her discussion of the Weighing of Souls (see A.J.A. XVII, pp. 307 f.). Sex is only occasionally distinguished in the figures occupying the pans of the balance. Frogs, devils, grotesques, and in one instance, a millstone, frequently symbolize evil, and a chalice or a book is sometimes used in the "good" scale. The Virgin and saints often intervene on behalf of the good. The majority of cases represent the good pan to St. Michael's right and heavier than the sinister pan. The archangel frequently is represented conquering the dragon and weighing souls at the same time.

The Significance of Crossed Legs in Mediaeval Art. — In Gaz. B.-A. IV-IX, 1913, pp. 173-188, H. Martin discusses the meaning of figures with crossed legs in mediaeval art. He shows clearly that it is a royal attitude, and depicts the king almost as distinctively as the omnipresent crown. The motif is rare before the twelfth century, and almost never found in Italy, the latter fact pointing to a Germanic origin. It is extended to animals performing the part of kings in caricatures, and traces of the tradition are found as late as the eighteenth century, though at this time it was a mark of gentility, but not necessarily of royal birth.

The Origin of the Ambulatory. — In Mh. f. Kunstw. V, 1912, pp. 508-519, E. Gall continues his studies in the history of the ambulatory (see A.J.A. 1912, p. 597). He discusses its origin and finds that it arose to afford access to the chapels which gradually gathered near the high altar. The beginnings of the device can be seen in the Carolingian period, where it took its rise from the circular crypt, but its definite form cannot be found until the end of the tenth century.

ITALY

Early Tuscan Artists. - In L'Arte, XVI, 1913, pp. 208-227, MARIO SALMI discusses the work of a number of artists who flourished ca. 1400, and catalogues several new additions to their œuvre. These are Lorenzo di Niccoló Gerini, Mariotto di Nardo, Bicci di Lorenzo, Giovanni dal Ponte, Rossello Jacopo Franchi, and the "Maestro dal Bambino vispo." Several little known works are illustrated in the article, e.g. a Madonna of the school of Giotto, in the Museo Civico at Pescia; another Madonna of Oreagna's school in the church of SS. Sisto e Nicolao of the same place; a polyptych by Mariotto di Nardo at S. Donnino a Villamagna; a triptych by the same master in the Oratorio di Fontelucente; a Coronation of the Virgin by Bicci di Lorenzo, in the Biblioteca Capitolare at Pescia; a Madonna and Saints in the Museo Civico of Pisa, by Giovanni dal Ponte; two medallions of saints by the same painter in the Museo del Duomo at Florence; a Madonna by Rossello di J. Franchi in the Oratorio dei Bini at Florence; a polychrome statue of the Madonna in wood in Arezzo cathedral; another in terra-cotta in S. Bernardo, Arezzo; a fifteenth-century head of S. Orsola by a French sculptor of the fifteenth century; and a S. Antonio in terra-cotta, by Niccoló di Piero (?), in the Villa Vivarelli at Arezzo.

An Ostrogothic Cup. — In Burl. Mag. XXIII, 1913, pp. 37-43, Sir Martin Conway discusses the style of a silver-gilt and rock-crystal cup in the treasure of St. Mark's, Venice. He argues that the inlaid gold circlets on the garnets which decorate the cup, as well as the blue circles with which they alternate, are characteristic of Ostrogothic work. Other details point in the same direction, and the writer concludes that the cup was made at Ravenna in the time of Theoderic.

A Canon of Proportions in Old St. Peter's. — In Röm. Quartalschrift, 1913, pp. 1-16, P. Odlo Wolff attempts to show that the Constantinian basilica of St. Peter's was built according to a canon of proportions based on the rules of the ancient augurs and agrimensores.

S. Giacomo di Corneto. — In Arte e Storia, XXXII, 1913, pp. 165-171 (4 figs.), A. Kingsley Porter describes the little church of S. Giacomo at Corneto and gives its history. It was probably built about 1095.

The Turris Chartularia.—In Rend. Acc. Lincei, XXI, 1913, pp. 767–772, A. Bartoli shows from a new interpretation of mediaeval documents that the so-called Turris Chartularia was not the Chartularium (a building for the pontifical archives), but received its name from its proximity to the real Chartularium, which was in a temple of Aesculapius, below the temple of Pallas.

FRANCE

A Sculptured Capital in the Toulouse Museum. —In Gaz. B.-A. IV—IX, 1913, pp. 69-72, P. Pouzer corrects previously published mistakes in the description of a capital from the cloister of Saint-Étienne, now in the Toulouse museum. The capital surmounts twin shafts and is dated by Mâle in the early twelfth century.

GERMANY

The Miniatures in the Scivas of Saint Hildegarde.—In Mon. Piot, XIX, 1911, pp. 49-149 (8 pls.; 32 figs.), Dom Louis Baillet discusses in detail the miniatures in the Scivas of Saint Hildegarde preserved in the library at Wiesbaden. They were probably painted between 1160 and 1180.

GREAT BRITAIN

Dyed Linens in the South Kensington Museum. — In Proc. Soc. Ant. XXIV, 1912, pp. 286-297 (5 figs.), W. R. Lethaby discusses four pieces of



FIGURE 2.—DYED LINEN; THE ANNUNCIATION.

(Victoria and Albert Museum.)

dyed linen from Egypt in the Victoria and Albert Museum at South Kensington. They are decorated with Christian subjects which appear to have been stopped out in wax on a blue background, and date from the fourth or fifth century. One represents an Annunciation (Fig. 2). The Virgin, who is seated, is removing wool from a basket to attach it to a distaff. The second is a Nativity. The Virgin is reclining on a couch looking back at an angel (Fig. 3). The third piece has four scenes, the healing of the woman, the

delivery of the law, the raising of Lazarus, and the cure of the man with the dropsy. The identification is helped by the inscriptions. The fourth

piece of linen has two standing figures, a man and a woman, but it is so fragmentary that they cannot easily be identified. The writer also comments upon certain roundels of silk embroidery dating from the sixth or seventh century in the museum. One represents an Annunciation and a Visitation, another the Last Supper, and a third has a jewelled cross within a wreath. He also calls attention to other early Christian works of art which have connection with Egypt.



FIGURE 3. — DYED LINEN; THE
NATIVITY.
(Victoria and Albert Museum.)

Paintings in St. George's Chapel, Windsor. — In Archaeologia, LXIII, 1912, pp. 85-98 (7 pls.), W. H. St. John Hope and P. H. Newman discuss the chantry chapels of Hastings and Oxenbridge in the chapel of St. George at Windsor. In the former chapel are paintings of incidents in the life and death of St. Stephen. They resemble English mediaeval scenic painting and are probably the work of an artist of that class. In the Oxenbridge chapel the paintings have to do with the life and death of John the Baptist. These seem to be the work of a Dutch painter, perhaps of Lucas Cornelisen.

Wall Paintings in Canterbury Cathedral. — In Archaeologia, LXIII, 1912, pp. 51–56 (colored pl.; 4 figs.), W. D. Caröe publishes the twelfth-century wall paintings found in the chapel of Canterbury cathedral. There was a frieze of animals of which one taken by the writer for a bear or a dog is carrying a small horned animal. Another, much injured, represented the Virgin and Child attended by saints. The colors when found were very fresh.

The Church of St. Augustine at Bristol. — In Archaeologia, LXIII, 1912, pp. 231-250 (plan; 7 figs.), R. W. Paul discusses the church and monastery of St. Augustine at Bristol. A plan in colors shows at what periods the different parts were built.

The Dominican Priory of London. — In Archaeologia, LXIII, 1912, pp. 57-84 (3 pls.; 3 figs.), A. W. Clapham discusses the Dominican priory

of London, and gives a ground plan.

St. Cuthbert's Stole and Maniple.—The well-known embroideries found in the coffin of St. Cuthbert in 1827 and now preserved at Durham, are the subject of articles in Burl. Mag. XXIII, 1913, pp. 3–17 and 67–72, by G. Baldwin Brown and Mrs. Archibald Christie. Inscriptions on the pieces enable the date to be placed in the early tenth century, which is consistent with the lettering. The maniple is adorned with the figures of Sts. Sixtus and Gregory, the deacons Lawrence and Peter, while the stole had the figures of the prophets, of which thirteen still exist or may be assumed. The embroidery was done with silk, and silk wound with gold. Most of the article is devoted to a careful analysis of the technique. A good plate reproduces the textiles, and is accompanied by a detailed description.

A Mediaeval Mitre. — In Proc. Soc. Ant. XXIV, 1912, pp. 127-131 (2 figs.), W. H. St. John Hoff publishes part of a jewelled mitre of English workmanship dating from the second half of the fourteenth century. It is of canvas, with rows of gold thread upon it and adorned with a vertical band of eleven silver-gilt lockets, enclosing silver plates with flying or walking birds with grounds of blue translucent enamel. On the body of the mitre are silver-gilt ornaments enclosing jewels. Nothing is known of its history.

RENAISSANCE ART

GENERAL AND MISCELLANEOUS

Fourteenth-Century Frescoes on the Island of Rhodes.—In Mon. Piot, XIX, 1911, pp. 211–216 (2 colored pls.; fig.), G. Schlumberger describes eight water-color reproductions of the fourteenth-century frescoes formerly existing in the underground chapel on Mount Phileremus in northern Rhodes. The water-colors were made by Auguste Salzmann probably between 1860 and 1870. No satisfactory copies of these frescoes were known to exist.

A Spanish Monstrance. — In *Proc. Soc. Ant.* XXIV, 1912, pp. 332–336 (6 figs.), C. J. Jackson discusses a silver-gilt monstrance of Spanish workmanship dating from the first half of the sixteenth century. The outline and most of the details are Gothic, but the decoration is chiefly Renaissance. It once belonged to the Catalan monastery of Lerida.

The Ecclesiastical Hat in Heraldry. — In Burl. Mag. XXII, 1913, pp. 338-344, E. Beck discusses the ecclesiastical hat in heraldry. He finds that

before the beginning of the seventeenth century the placing of the hat over the armorial bearings indicated that the owner of the arms had the right to wear the hat in papal cavalcades, and thus belonged to the ranks of cardinals, bishops, protonotaries, and auditors of the Rota (after 1520). The number and arrangement of the tassels is of no consequence, the distinctive feature being the color, red for cardinals and black for protonotaries, the practice of the bishops being uncertain.

Jettons. — In Ann. Arch. Anth. V, 1913, pp. 97-106 (pl.), F. P. Barnard publishes a supplementary list of twenty-five jettons, or casting counters,

dating from the thirteenth to the sixteenth century.

ITALY

The Influence of the Netherlands on Tuscan and Umbrian Painting of the Fifteenth Century.—In Mh. f. Kunstw. V, 1912, pp. 404-419, B. HAENDCKE argues for a recognition of the part played in the development of Italian painting between 1450 and 1500 by the infusion of ideas from the Low Countries. The first centre of distribution of these ideas seems to have been Venice, and Domenico Veneziano may be said to have been their representative in Florence. The influence can be traced in the evolution of landscape. Details like the profile and the balustrade in portraits seem to have been first worked out in the North. The artists who, after Domenico, were the chief exponents of the Northern notions were Piero di Cosimo, Pisanello, Melozzo, Pollaiuolo, and Ghirlandaio.

Attributions in the Bargello. — In Rass. d' Arte, XIII, 1913, pp. 10–20, G. Bernardini discusses at some length the authorship of three pictures in the National Museum of the Bargello. The first is a diptych representing the Madonna and the Crucifixion, hitherto attributed to a French master of ca. 1400. Bernardini assigns it to the school of Cologne. The Judgment of Paris he assigns to the same master who executed the Madonna with Angels of the Colonna Gallery in Rome, usually attributed to Stefano da Zevio. A Madonna in the Bargello, which is attributed to the Dutch School, should be assigned to the school of Gerard David.

Italian Pictures in a Hungarian Collection.—In Rass. d'Arte, XII, 1912, pp. 165–170, A. Colasanti and T. Gerevich catalogue the Italian pictures in the Pálffy collection recently added to the museum at Budapest. The most important paintings are: a large polyptych by Lorenzo Veneziano; a Madonna by Antonio Vivarini; a Calvary by Marco Basaiti; an Assumption by Bergognone; a Madonna and Saints by Boltraffio; a large polyptych by A. Orcagna; and two pictures by Francesco Francia, a Holy Family and a Madonna.

The Trinity of S. Maria Novella.—G. J. Kern contributes to Jb. Preuss. Kunsts. XXXIV, 1913, pp. 36-53, a careful analysis of the fresco representing the Trinity of S. Maria Novella, in which he points out the extraordinary skill that is employed in the delineation of the perspective architectural background, and the contrast between this and the inability of the artist who did the figure group to relate the latter to the spatial environment. He believes, however, that Masaccio is the author of the whole fresco, but that in the background he made use of a drawing of Brunelleschi from a Roman monument.









FIGURES 4, 5, 6, 7. — BOTTICELLI; SCENES FROM THE LIFE OF St. ZANOBI.

(4, Metropolitan Museum; 5, 6, Mond Gallery; 7, Dresden Gallery.)

The New York Botticelli. — In Z. Bild. K. XXIV, 1913, pp. 94-96 (4 figs.), LOUISE M. RICHTER publishes the lately acquired Botticelli of the Metropolitan Museum (A.J.A. 1912, p. 157, where three panels are mentioned by mistake instead of one), with the other panels of the series in the Dresden gallery and the Mond collection (Figs. 4, 5, 6, 7). The panels represent Miracles and the Calling of S. Zanobi, and were doubtless parts of an ecclesiastical chest. The New York panel was originally in the collection of Sir William Abdy.

Raphael's Teacher. — The old question of Raphael's teacher is taken up again in Jb. Preuss. Kunsts. XXXIV, 1913, pp. 89–96, by O. Fischel, the discoverer of the altar-piece of Città di Castello (A.J.A. 1913, pp. 133–135). He finds nothing in the newly recovered picture to indicate that Timoteo Viti was the young painter's master, and after a comparison of details of the altar-piece with Perugino's works, falls back on the old Vasari tradition, that Raphael's master was no other than Perugino.

Identification of a Raphael Portrait in the Prado. — The portrait of a cardinal in the Prado at Madrid has long defied the efforts of critics to identify the sitter. In Mh. f. Kunstw. VI, 1913, pp. 1-17, R. Durrer compares the portrait with authenticated likenesses of Cardinal Matthäus

Schinner, the energetic Swiss supporter of Julius II, and decides that he is the prelate represented in the Prado picture.

Titian's 'Sacred and Profane Love.'—In R. Arch. XX, 1912, pp. 433 f., S. R(EINACH) comments on Poppelreuter's theory that Titian's famous picture represents a naiad advising Sappho to cast herself down from the Leucadian rock, and suggests that it really represents Venus inviting a bride to the nuptial bath; the Cupid with his hand in the water is testing the temperature, a motive often found in representations of the birth of the Virgin or of St. John.

A Portrait of Alessandro dei Medici. — Vasari describes a portrait of Alessandro dei Medici made by Pontormo by the enlargement of a miniature, and the

ment of a miniature, and the same portrait is described in a letter of Ansoldi, a retainer of Alessandro's. The distinctive feature of the portrait, according to the account of Vasari, was the pose of the sitter, who was represented as drawing "with a stylus the head of a woman." This description and that of Ansoldi fit exactly a picture in the style of Pontormo in the Johnson collection in Philadelphia (Fig. 8), which is clearly the portrait in question. (F. M. Clapp, Rass. d'Arte, XIII, 1913, pp. 63-66.)



FIGURE 8. — PORTRAIT OF ALESSANDRO DEI MEDICI.

A New Attribution to Giovanni Bellini.—The "St. Justina" in the Bagatti-Valsecchi collection in Milan was formerly attributed by B. Berenson to Alvise Vivarini. In Gaz. B.-A. IV-IX, 1913, pp. 460-479, the same critic revises his opinion, and gives the picture to Giovanni Bellini on internal evidence. The Mantegnesque qualities of the picture are not to be expected of a work by Alvise, but perfectly consistent with Bellini's early period, to which the writer assigns the painting, dating it about 1460.

The Nephews of Antonello da Messina.—Antonio da Saliba and Pietro da Messina are made the subject of a brief discussion by B. Berenson in Rass. d'Arte, XIII, 1913, pp. 57-59. He attributes to the former a Madonna in the collection of Mr. Theodore Davis at Newport, and, with some reservations, a "Madonna of Pity" in the Oratory of the Trinity at Macerata. To Pietro he gives a Madonna in the Heugel collection at Paris, and possibly the Adoring Virgin belonging to Mr. R. S. Minturn of New York.

The Frescoes of the Cappella del Crocefisso in S. Marcello, Rome.—In Boll. Arte, VII, 1913, pp. 87-93, G. Frocco publishes documents which show that the frescoes in the ceiling of the Cappella del Crocefisso in S. Marcello were done by Pierino del Vaga at two periods, the first of which occupied but a short time in the years 1525-1527, while the other covered a longer space and lay between the years 1540-1543. The style of the frescoes shows the collaboration of Daniele da Volterra, but there is nothing in them that points to Pierino's traditional assistant, Pellegrino da Modena.

Notes on Giovanni D' Alemagna. — In Mh. f. Kunstw. V. 1912, pp. 395–403, C. Gebhardt separates the oeuvre of Giovanni d' Alemagna from his collaborator Antonio Vivarini, assigning to the former a Madonna in the Chiesa dei Filippini at Padua (ca. 1448), another in the Pinacoteca of Città di Castello, the major portion of the great altar-piece in the Academy, the four male saints of the triptych of S. Zaccaria in Venice, and the "Paradiso" of 1444 in S. Pantaleone, Venice, in which he may have been assisted by Antonio. Affinities with the work of Hans Peurl show that the art of Giovanni is derived from Nürnberg rather than from Cologne, as has been supposed hitherto.

Works by Francesco Pagani. — The oeuvre of Francesco Pagani is discussed in Z. Bild. K. XXIV, 1913, pp. 81-84, by D. von Hadeln. Certain works are documented, such as the Baptism in S. Francesco at Serravalle (1530), a triptych representing three saints at Caneva di Sacile (1517), and the adaptation of the "Madonna of the Rocks" now in the magazzini of the Academy at Venice (1537). Other works attributable to the painter are: a Repose in Egypt (based on a wood-cut of Cranach's in Schloss Lichtenwalde; a Madonna with Saints at Amzano; an Adoration of the Shepherds in S. Martino at Conegliano; and a Pieta in the Venice Academy.

Madonnas by Neroccio dei Landi. — In Rass. d Arte, XIII, 1913 pp. 73-74, Mary L. Berenson publishes five Madonnas by the hand of Neroccio. They are: the Madonna with the Baptist and the Magdalen, in the possession of Count Karolyi in Budapest; the "Madonna del Latte" of the church of the Madonna in Magliano (Tuscany); a Madonna with Angels in the Czartozyski collection of Cracow; a Madonna and Saints belonging to Count Serristori at Florence; and a Madonna with the two Saints John, in the possession of M. Stoclet at Brussels.

Federigo Barocci at Perugia. —In Rass. d' Arte, XII, 1912, pp. 189-196, W. Bombe discusses three pictures painted by Barocci during his employment at Perugia. The first is the Deposition which still remains in the Cathedral, with reference to which the writer collects the drawings made by the artist in preparation for the work, and the documents relating to the altar which it was to decorate. Another picture painted by the artist in Perugia is the Repose in Egypt of the Vatican Gallery. The third painting is the Madonna with SS. Lucia and Antonio in the Louvre, which is ascribed by documents of the seventeenth century to an unknown nephew of the artist, Francesco Baldelli. The attribution to Barocci, however, is sustained by authenticated drawings for the picture by Barocci himself, and the stylistic peculiarities. A documentary appendix accompanies the article.

Nanni di Banco. — Apropos of the "David playing the Lyre" of the Kaiser Friedrich Museum, O. Wulff contributes to Jh. Preuss. Kunsts. XXXIV, 1913, pp. 99-164, a review of the available data concerning Nanni di Banco, and an estimate of his position in the evolution of Florentine sculpture. The David seems to have come originally from the Duomo, and is most closely related to the Angel and Madonna Annunziata of the Museo dell' Opera. Herein is seen the keynote of Nanni's style, the re-fashioning of Gothic forms under the influence of the antique. With the criteria derived from this and other works, the writer proceeds to define, as far as possible, the sculptor's part in the decoration of the Porta della Mandorla, and his later development in works like the St. Luke, and the statues of Or San Michele. He finds that Nanni is the precursor of Donatello in initiating the proper study of the body which was prerequisite to the Renaissance, and maintains that his importance in this respect has not been fully recognized.

The Perseus of Benvenuto Cellini.— An Italian archaeologist, Annibale Benedetti, has discovered that the reverse of the helmeted head of the Perseus in the Loggia dei Lanzi, at Florence, has the appearance of a head, which he regards as a portrait of the sculptor, Benvenuto. His view is apparently fully sustained by photographs taken with the proper lighting. (S. R., R. Arch. XX, 1912, p. 434.)

A New Attribution to Giovanni Bologna. — In Ber. Kunsts. XXXIV, 1913, cols. 85–96, F. Goldschmidt rejects the customary attribution of the clay figurine, No. 215, to Tribolo, and shows that it is a study for the rivergod, Euphrates, on the Fontana dell' Isolotto in the Boboli Gardens, by Giovanni Bologna. He also finds in the Fall of Phaethon a work of Francesco Moschino.

FRANCE

The Triumphal Entry in France. — The genesis and development of the ceremonial entry in France forms the subject of an article by R. Schneider in Gaz. B.-A. IV-IX, 1913, pp. 85-106. Beginning in the sixteenth century, and in Normandy, the custom is stamped in its first period with the legend and symbolism of the Gothic Middle Ages. The legend of the Nine Heroes, however, mingling the heroes of the Bible with those of antiquity, formed the favorite motif of these early "triumphs," and afforded a transitional element to the next, or humanistic phase. This

was due chiefly to the Italian influence which permeated French art and manners after the period of the Lombard Wars. Thus the chief motif now became the triumphal chariot, and the cortege was modelled after the triumphal processions of antiquity. The French vein of caricature also took hold of the "triumphs," and parodies of such processions were often performed, especially in Normandy.

Berninesque Altars in France.—The influence of Bernini on the style of high altars built in French churches at the end of the seventeenth and the beginning of the eighteenth century is traced by M. Reymond in Gaz. B.-A. IV-IX, 1913, pp. 207-218. The writer shows how the model of Bernini's altar of Val-de-Grâce was followed in that of the abbey of Bec, now at Bernay; the altar of La Trinité at Caen; in the cathedral of Tarbes; in that of Sens; in that of Angers; at Amiens; and in Saint-Sulpice at Paris.

Leonardo, the Architect of Chambord. - In Gaz. B.-A. IV-IX, 1913, pp. 437-460, M. and C. REYMOND argue that the architect of Chambord was Leonardo. The considerations in favor of their hypothesis are the following: the native "architects" named in the records can be shown to have been but workmen; the chateau was planned and begun during Leonardo's sojourn in France; the original plan, as reproduced by Félibien from an old wooden model, provides no stairway, but a square hall in the centre of the building, and presents a striking resemblance to Bramante's design for St. Peter's, which may be supposed to have been influenced by Leonardo's ideas; the corner towers are no more French than Milanese; the central mass, the dome and lantern, the wide arcades in the original project, are Italian rather than French and characteristic of Leonardo's architectural drawings; and lastly, two of his drawings depict buildings of a very similar character, and one of them is given a dimension in the accompanying note in the artist's hand which corresponds to that of Chambord.

The Obsequies of the Virgin. — In R. Arch. XX, 1912, pp. 334–339 (4 figs.), Salomon Reinach publishes a Catalan (or Provençal) painting in the collection of Mr. Maurice Sulzbach, at Paris. The scene represented is the exposition of the body of the Virgin. In the foreground an angel cuts off with a large sword the hands of the priest who laid hands upon the bier. This motive may have been brought to western Europe by the Catalan bands that occupied Greece in the fourteenth century. Paintings at Mistra support this view. Ibid. pp. 339–340, G. Millet suggests that the cutting off of the hands, which really belongs with the funeral, not with the "Dormition" of the Virgin, became associated with the latter through pictures in which successive scenes were represented without division. The scene may have reached western Europe through illuminated manuscripts.

A Syriac Manuscript in the Louvre. — In Mon. Piot, XIX, 1911, pp. 201-210 (5 pls.), H. OMONT describes the illuminations in a beautiful Syriac manuscript of twelfth or thirteenth century date recently acquired by the Louvre. There were, originally, twenty-four full-page illuminations, 310 mm. by 230 mm., of which ten are still preserved. They were painted by a certain Joseph of Melitene in Cappadocia, and represent the Presentation in the Temple, the Baptism of Christ, the Entry into Jerusalem, the Washing of the Feet, Christ and St. Thomas, the Ascension, the

Glorification of Christ, Christ, the Virgin and St. John, and two ornamental crosses.

BELGIUM AND HOLLAND

The Van Eyck Medium.—The much discussed problem of the Van Eyck medium is treated again in Burl. Mag. XXIII, 1913, pp. 72–76, by A. P. Laurie. His conclusion, based on a number of experiments with various media available in the fifteenth century, is, that it is "highly probable that there was a tradition in the North for painting with an emulsion of egg and varnish, which existed before the time of Van Eyck, and which was brought to its highest perfection by Van Eyck and his immediate followers. It is also possible that the rapid disappearance of this method, and its replacement by the use of oil to which a little varnish had been added, was due to the preparation in commercial quantities of the volatile mediums, such as turpentine, which opened up new possibilities to the artist in handling stiff and sticky mediums."

The Staedel Madonna, by Roger Van der Weyden.— A picture in the Staedel Institute at Frankfurt represents the Virgin suckling the Child in the midst of a group of saints, viz. Peter, John the Baptist, and Cosmas and Damian. The Florentine fleur-de-lys at the bottom of the picture has always been identified with the arms of the Medici, and the physician saints Cosmas and Damian as their patrons, so that the picture was supposed to have been painted for that family. In Burl. Mag. XXII, 1913, pp. 230–232, A. J. WAUTERS shows that the arms are not those of the Medici, but rather of a branch of the family of Jan van Rode, who in 1426 presented its quarters to the Faculty of Medicine of the University of Louvain. The saints are thus explained: St. Peter is the patron of Louvain, St. John the eponymous saint of van Rode, and the two physicians are the patrons of the faculty of medicine. The picture was, therefore, painted by Van der Weyden for the Faculty of Medicine of the University.

An Unknown Delft Painter of the Early Sixteenth Century. — In Burl. Mag. XXIII, 1913, pp. 102–107, M. J. FRIEDLAENDER assembles the oeuvre of a nameless painter who must have worked in Delft, having painted for Dirk van Beest, burgomaster of Delft, the triptych in the Rijksmuseum at Amsterdam, in which that worthy appears as the donor. Another work by the same master is an altarpiece in the Kneppelhout collection at Oesterbeek. His most important work is the triptych (Ecce Homo, Crucifixion, Descent from the Cross), recently presented to the National Gallery by Earl Brownlow. Others are the Crucifixion in the Wallraff Museum at Cologne and the Madonna with St. Bernard in the Archiepiscopal Museum at Utrecht. He flourished between 1490 and 1520.

GREAT BRITAIN

Italian Artists in England in the Sixteenth Century. — In Proc. Soc. Ant. XXIV, 1912, pp. 171-204, R. W. CARDEN gives an account of the Italian artists who worked in England during the sixteenth century.

Palimpsest Brasses of the Sixteenth Century.—In Proc. Soc. Ant. XXIV, 1912, pp. 206-223 (6 figs.), M. Stevenson discusses four palimpsest brasses of the sixteenth century. In one case eight earlier brasses had been used to make a new one, and in another case six. See also *ibid*. pp. 125-126.

AMERICAN ARCHAEOLOGY GENERAL AND MISCELLANEOUS

Antiquity of Man in America. — In Journal de la Société des Américanistes de Paris, N.S. X, 1913, pp. 15-23, H. VIGNAUD summarizes the data in recent publications of Hrdlička, Holmes, and others, in Bulletins, Nos. 33 (1907) and 62 (1912) of the Bureau of American Ethnology, which go far to disprove the theories of extraordinary antiquity of man in the New World.

Origin of Indians and their Culture. — In The Red Man, V, 1913, pp. 443-447, F. Boas discusses briefly the question, "Where do the Indians come from?" He reaches the conclusion that "in its origin and growth American culture has been essentially indigenous and practically uninfluenced by the advance made in the Old World." This is seen in building and architecture no less than elsewhere. In ancient America, for example, pyramids are substructures for buildings, rather than buildings per se, as in Egypt.

Proto-Americans in Asia. — In a paper, 'Remains in Eastern Asia of the race that peopled America,' in Smithson. Miscell. Coll. LX, No. 16, December 3, 1912 (3 pls.), A. HRDLIČKA points out the importance of the study of the culture of the older kurgans, with their dolichocephalic crania (closely resembling similar American Indian skulls) and pre-Mongolian and pre-Chinese elements, for the early history of man in the continent of America. As the portraits reproduced indicate, the resemblances between certain individuals among the tribes of the Lower Yenesei and American Indian types are very striking.

Implements of the Greenland Eskimo. — In Z. Ethn. XLIV, 1912, pp. 600-623 (7 figs.), MORTEN P. PORSILD distinguishes and describes certain hunting implements of the Greenland Eskimo, such as harpoons, darts, spears, arrows, lances, bows, chopping-knives (ulo), etc., discussing their development and considering the adaptation of varying materials to various

uses.

UNITED STATES

"Red-paint" People. — In Am. Anthr. N.S. XV, 1913, pp. 33-47 (10 figs.), W. K. MOOREHEAD treats of the "red-paint" people of the lower Penobscot valley, where have been discovered "evidences of an unusual culture of considerable age." Hunting and not agriculture was their chief occupation, and the designation "red-paint people" comes from the use of red ochre, suggesting comparison not proved, however, with the Newfoundland Beothuk. The writer's researches began where those of Willoughby ceased. Most of the cemeteries thus far discovered are near tide-water and range from the valley of the Kennebec eastward as far as Bar Harbor, and "it is probable that the same culture extended as far north as Passadumkeag, about thirty miles north of Bangor." "The graves represent an ancient and exceedingly primitive culture, totally different from that of the later Algonquian tribes inhabiting the region." The Emerson cemetery site on Lake Alamoosook, the Hartford cemetery at Orland, the Mason cemetery on Lake Alamoosook, and the Hathaway cemetery at Passadumkeag, are especially referred to. A large number of specimens

illustrative of the culture of this people are now in the collections of the Department of Archaeology of Phillips Academy, Andover, Mass.

Seminole Houses. — In Am. Anthr. N.S. XV, 1913, pp. 63-77 (pl.; 10 figs.), A. Skinner gives an account of the houses of the Seminole Indians of Florida, their village life, dress, bead-work, tanning process, work in silver, etc.

Ringeisen Collection of Stone Implements. — In Rec. Past, XII, 1913, pp. 69-73 (7 figs.), C. E. Brown describes the collection, "excelled in the variety of its contents by no other Wisconsin private collection of this particular character, and, perhaps, by but few others in any state," of Mr. Joseph Ringeisen, Jr., of Milwaukee. It represents the labors of some fifteen years, and contains "chipped stone implements of every known Wisconsin and class type," including twenty-five fine examples of "the rare fluted or ornamented stone axes and celts, which are peculiar to this region" (one axe from Wind Lake shows thirty-five flutes). It is also rich in stone ornaments and problematic stone objects, such as bird-stones, banner-stones, boat-stones, gorgets, tubes, pendants, beads, cones, hemispheres, etc. Among these are twenty banner-stones, two hundred gorgets, thirty stone pipes (Siouan, Micmac, disk, monitor, rectangular, ovoid, effigy, etc.). Noteworthy likewise is the number of "caches" of blanks and knives represented in this collection.

"Footprint" Petroglyphs.—In Am. Anthr. N.S. XV, 1913, pp. 8–15 (pl.; fig.), D. I. Bushnell, Jr., discusses petroglyphs representing imprints of the human foot. They are usually found near watercourses, and the best examples are isolated and dissociated from other figures. Petroglyphs from Virginia, North Carolina, Kentucky, Ohio, Illinois, Missouri, Oklahoma, South Dakota, etc., are referred to. A "footprint" from near Kimmswick, Mo., is now in the Peabody Museum of Harvard University; some from Oklahoma are in the American Museum of Natural History, New York. A number of others are also preserved in different places. The writer is desirous of learning the locations of all such petroglyphs as are here considered.

MEXICO AND CENTRAL AMERICA

Eoliths.—The paper of G. Engerrand in *Bol. Mus. Nac. de Arqueól. México*, II, 1913, pp. 150–160, on the state of our knowledge concerning eoliths is the same as the article published by him in the *Revue generale des Sciences* (Paris), 30 juillet, 1912, pp. 541–548 (9 figs.). It contains a brief discussion of some "natural eoliths" from Lower California.

Aztec Idols.—In Bol. Mus. Nac. de Arqueól. México, II, 1913, pp. 133-136, C. A. Robelo treats in general terms, with references to Clavíjero, Mendito, etc., the question of ancient Mexican idols, reaching the conclusion that the Nahua religion was not a gross fetishism,—the missionaries often judged it very superficially.

Aztec Writing.—In Amer. Museum Journ. XIII, 1913, pp. 31-37 (3 pls.; fig.), H. J. Spinden discusses the picture-writing of the Aztecs, illustrated chiefly by place-names. Words here are really rebuses made up of conventionalized pictures as syllables.

Maya Hieroglyphs. — In Journal de la Société des Américanistes de Paris, N.S. X, 1913, pp. 59-94 (many figs.), H. BEUCHAT publishes the first part

of an article on the system of writing of the Mayas, treating of manuscripts and inscriptions, the history of attempts at deciphering, calendar, etc. The number of elements in Maya writing is estimated at not more than three hundred or four hundred at most.

The Mixtecan "Codex Rickards."—In Journal de la Société des Américanistes de Paris, N.S. X, 1913, pp. 47-57 (3 pls.; 13 figs.), C. G. RICKARDS describes and figures the "Codex Rickards," acquired by the author in 1907, "and up to that time unknown to the scientific world." It comes from Mixtecan Oaxaca, and "refers to the history of one of the tribes of the Mixteca nation." The manuscript is 14 ft. 2 in. in length and 5 ft. 5 in. broad, and is made of cotton, hand-woven, and is divided into three parts, which are sewn together. At one time "it must have been gorgeous with rich, deep colors, which have mostly disappeared." In some parts "the drawings have been rubbed out and new ones put in their places." The "Codex Rickards" is referred to as the "Lienzo Antonio de León" by Professor A. Castellanos, in his La Cronología Indiana.

The Book of Chilam Balam of Chumayel. — The Museum of the University of Pennsylvania has done a valuable service to students of the Maya language and Maya history in publishing a photographic facsimile of the Book of Chilam Balam of Chumayel. The original, of which this is a reproduction, was written by Juan José Hoil, a Maya Indian, in 1782 and is now preserved at Merida, Yucatan. The plates are very clear. A printed text and a commentary are promised. [The Book of Chilam Balam of Chumayel. With introduction by G. B. GORDON. Philadelphia, 1913, University Mu-

seum. 11 pp.; 107 pls. 4to.]

Paintings of Mestizos. — In An. d. Mus. Nac. IV, 1912, pp. 237-248 (9 pls.), the paintings of mestizos in the Mexican National Museum are described and figured with special reference to the account of them published by R. Blanchard in 1907 in the Journal de la Société des Américanistes de Paris.

Plants in the Art of Mexico and Peru. — In Z. Ethn. XLIV, 1912, pp. 392-395, von Hörschelman discusses plants as elements in the art of Mexico and Peru. Nowhere in the world, save only in old Aryan art, does the vegetable kingdom play so large a part. The "flower" was one of the twenty "day-signs" in Mexico. In the Codex Borgia and the Vienna Codex and in general throughout the Maya countries flowers, plants, and trees are significantly common wherever the highest civilization was attained. Flowers were cultivated and loved, and were used as garlands in festivals in decorating altars, statues, etc., so that they naturally entered largely into the art of these peoples.

Izamal. — In Am. Anthr., N.S. XV, 1913, pp. 16-32 (fig.), S. HAGAR discusses "Izamal and its celestial plan," describing the ancient Maya city of Itzamal (after Landa, and particularly, Lizana), treating of the significance of the symbolism (June solstice, sun-eye, fiery ara, etc.), and seeking to identify the traditional mounds with the present remains at Izamal.

México-Tenochtitlán. — In Bol. Mus. Nac. de Arquéol. México, II, 1913, pp. 167-173, C. A. Robelo discusses the naming, etymology, etc., of the city México-Tenochtitlán. México, Mé-xic-co, "where (the temple of) Mecitli is," was named from a chief Mecitli or Meci. Tenochtitlán signifies that it was founded by the priest Tenoch.

Archaeology in San Salvador.—In Journal de la Société des Américanistes de Paris, N.S. X, 1913, pp. 173-180, A. Peccorini treats in general terms of the archaeology of the Republic of San Salvador,—the ancient kingdom of Cuscatlán, the ruins of Quelepa, etc.

SOUTH AMERICA

Pre-Columbian Dyeing. — In Journal de la Société des Américanistes de Paris, N.S. X, 1913, pp. 43-45, M. Valette writes briefly of the dyeing of certain pre-Columbian textile materials, etc., from lower Peru, with animal and vegetable substances. The writer believes that the pre-Columbian Peruvians had carried on dyeing as far as was possible without the knowledge of modern chemical processes. He thinks that on the whole this pre-Columbian dyeing resembled most closely the Coptic.

The Colossal Statues of Easter Island. — In Z. Ethn. XLIV, 1912, pp. 873-877, W. Knoche finds that tradition indicates that the colossal statues (moais) of Easter Island, off the coast of Chili, were made by a Melanesian race, described as long-eared (i.e. with the lobe of the ear enlarged and stretched), but with the aid of later comers of Polynesian stock, who finally became numerous enough to overcome the "long-ears," and who, in token of their freedom, threw down the statues. The present inhabitants are descended from these short-eared Polynesians. Stories and songs of the people are described by Knoche in an earlier article of the same volume (pp. 64-72), and he elsewhere writes (pp. 659-661) of peculiar sex, marriage, and birth customs existing in the island.

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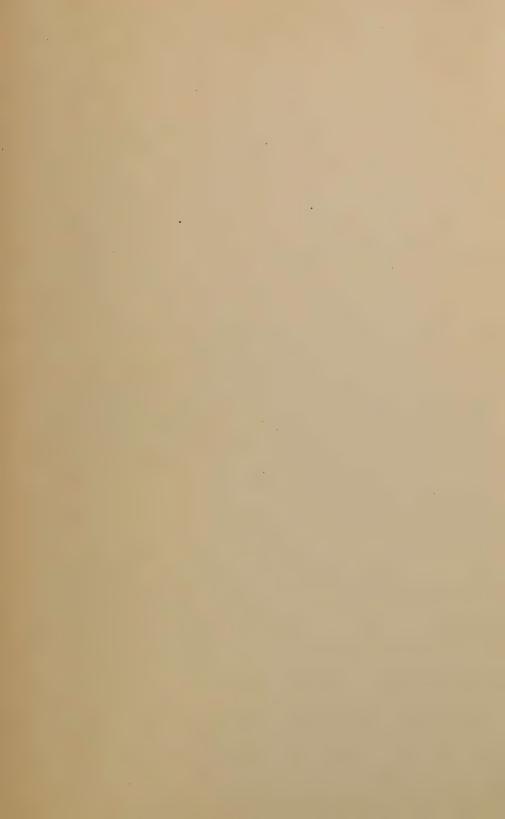
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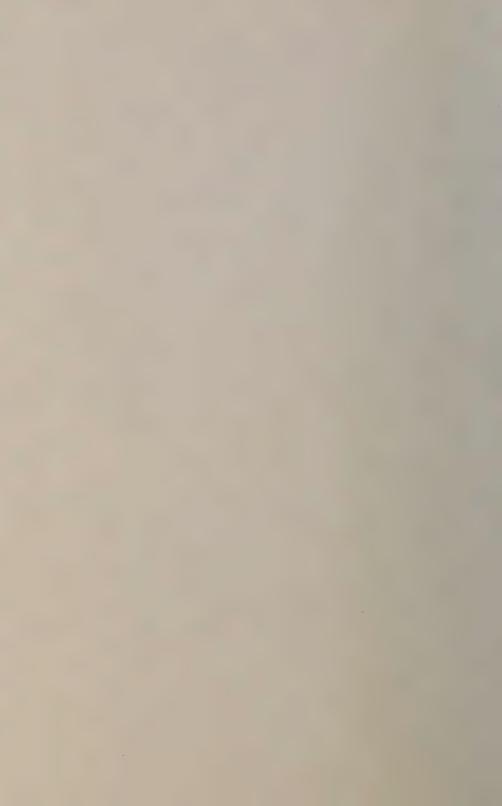
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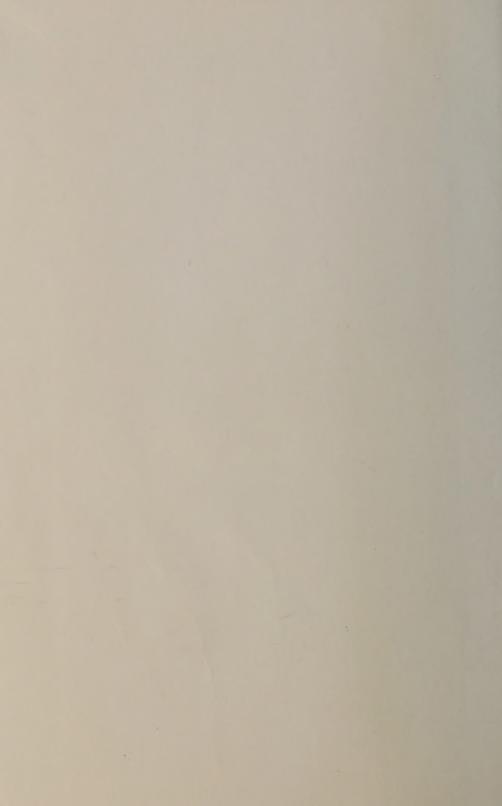
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